

# MANUFACTURERS RECORD

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A Weekly Newspaper Devoted to the Industrial, Financial, Railroad,  
Mining, Contracting, Engineering, Building, and General  
Business Interests of the South and Southwest

Vol. 67  
No. 19

ESTABLISHED 1882

\$4.00 Per Year  
Single Copy 15 Cents

Outlook in the South from the Standpoint  
of Bankers and Machinery and Supply  
Men.

The Striking Illustration of the Benefits to  
a Section from Railroad Construction.

The Constant Call of the Natural Resources  
of the South.

A Great Hydro-Electric and Navigation  
Project.

BALTIMORE, MAY 13, 1915

# CLINCHFIELD COAL

**CLEAN**



**LUMPY**

**"NEVER SHORT OF CARS"**

**MINED BY**  
**Clinchfield Coal Corporation**  
**DANTE, VA.**

**SOLD BY**  
**Clinchfield Fuel Company**  
**SPARTANBURG, S. C.**

**MACHINERY and SUPPLIES**  
 BELTING AND PACKING  
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**SMITH-COURTNEY CO. - RICHMOND, VA.**

**SINGLE ROLL CRUSHERS**  
 FOR ROCK PHOSPHATE AND LIMESTONE  
 Capacity, 10 to 200 tons per hour for Coarse and Medium Fine Product  
 Ore Washers, Jigs, Elevators, Conveyors, Etc.  
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**"STAR" MILLS**  
 Equipped with ESOPUS STONES  
 Make the old-fashioned "WATER GROUND TABLE MEAL"  
 Write for prices and discount  
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**Wm. Sellers & Co., Inc.**  
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 Can be attached to Locomotive.  
**SELF-ACTING INJECTOR** The only injector for Lumber Mills and Logging Roads



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Over 1500 people are yearly killed or crippled for life in the United States alone by projecting SET SCREWS. Don't wait till you have an accident. Remove all dangerous projecting SET SCREWS from your shafting and machinery, and replace them with ALLEN SAFETY SET SCREWS.  
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 CANADIAN FACTORY: ST. JOHNS, P. Q., CANADA

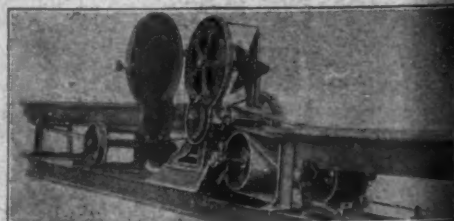
## BRICK MACHINERY

and  
**BRICK YARD SUPPLIES**  
**THE FERNHOLTZ BRICK MACHINERY CO.**  
 Boyle and Vandeventer Aves. ST. LOUIS, MO.

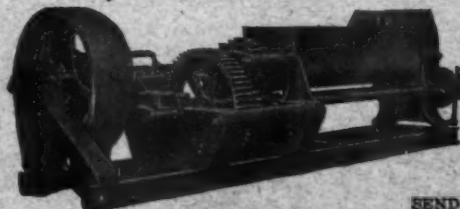
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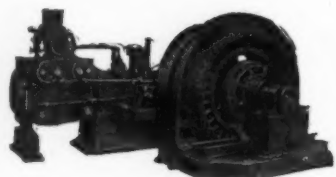
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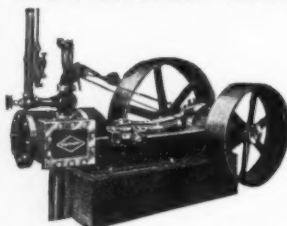
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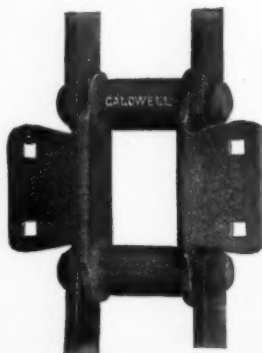
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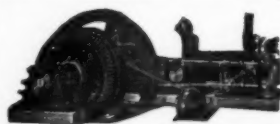
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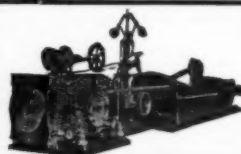
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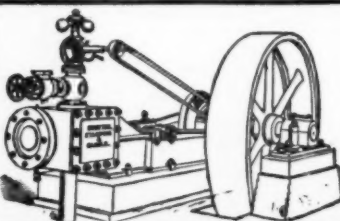
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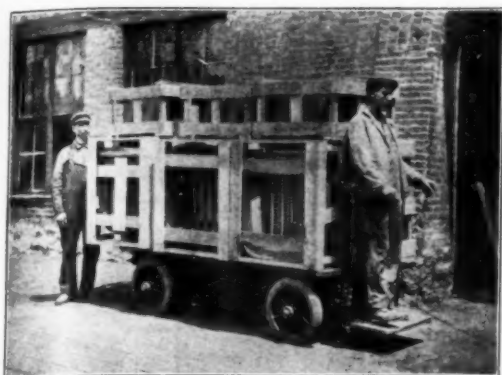
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We build a larger number of this type  
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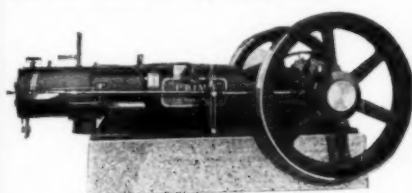
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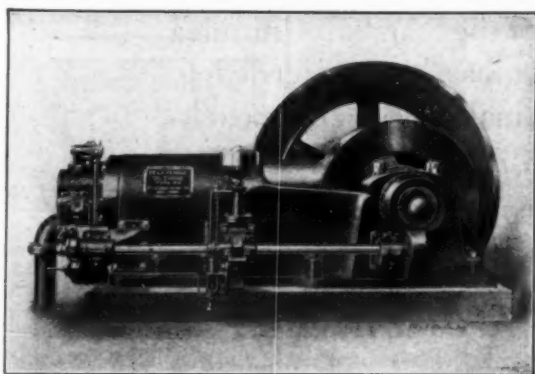
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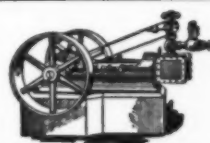
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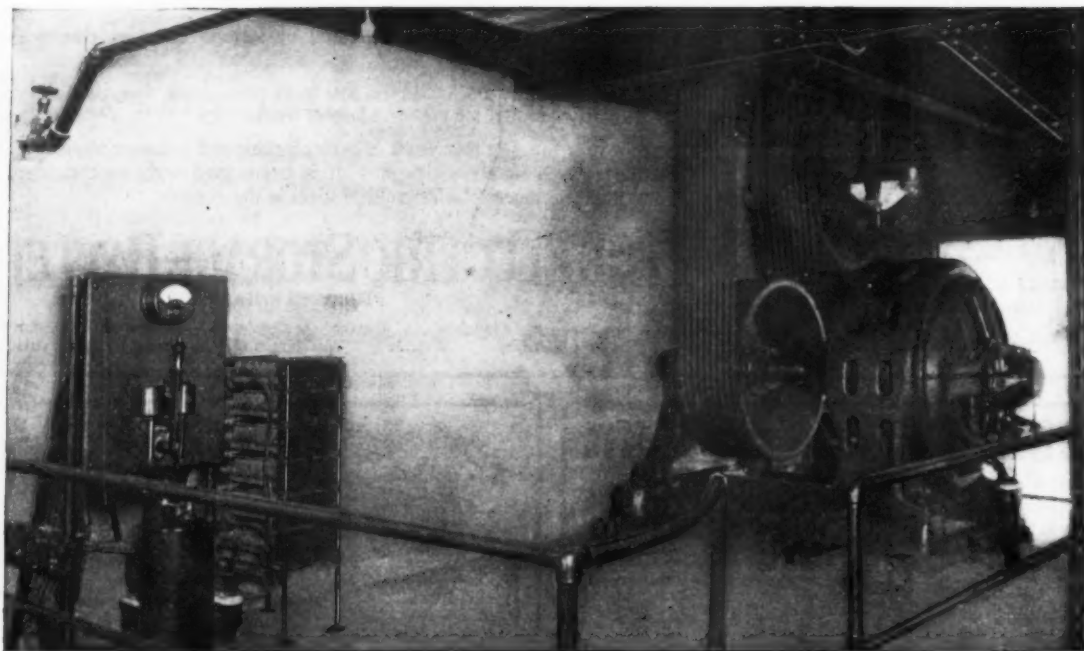
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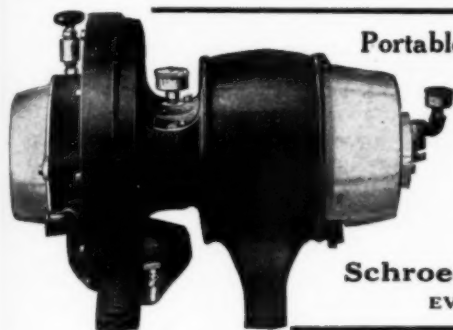
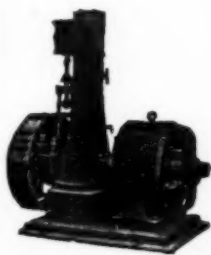
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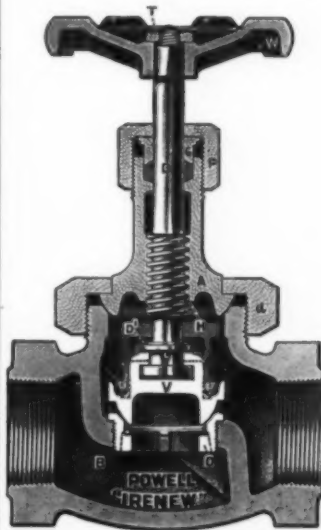
Complete combustion. Arrangement of tubes gives the water very rapid circulation. Steam capacity

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RENEWABLE DISC AND SEAT RING  
EASILY REGROUND

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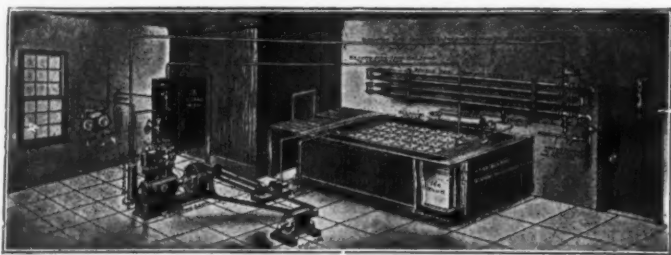
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Philadelphia.....North American Building  
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 Portable Ice Plants, 300 pounds to 1000 pounds capacity.  
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Write for an estimate on your requirements.

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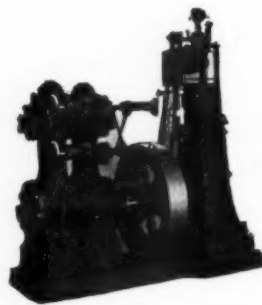
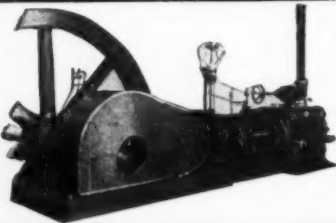
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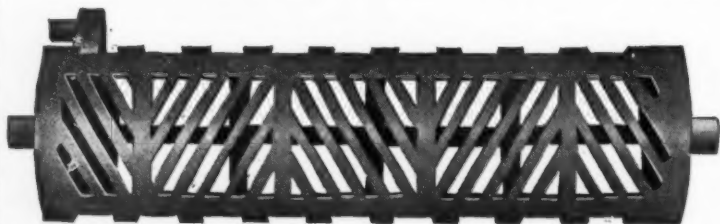
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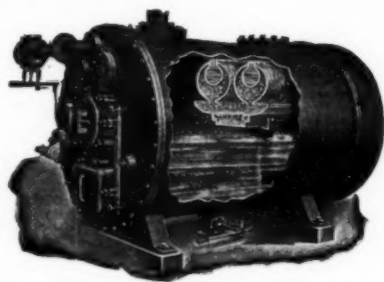
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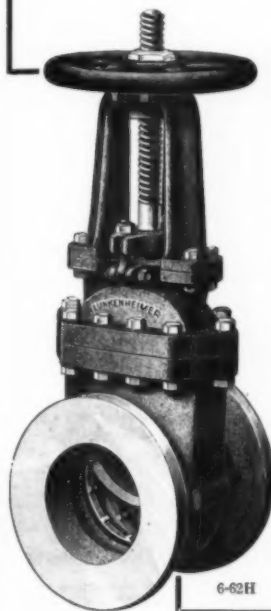
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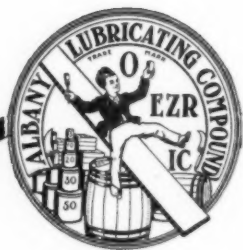
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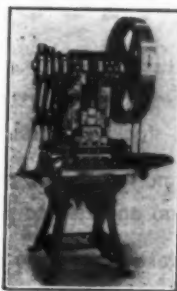
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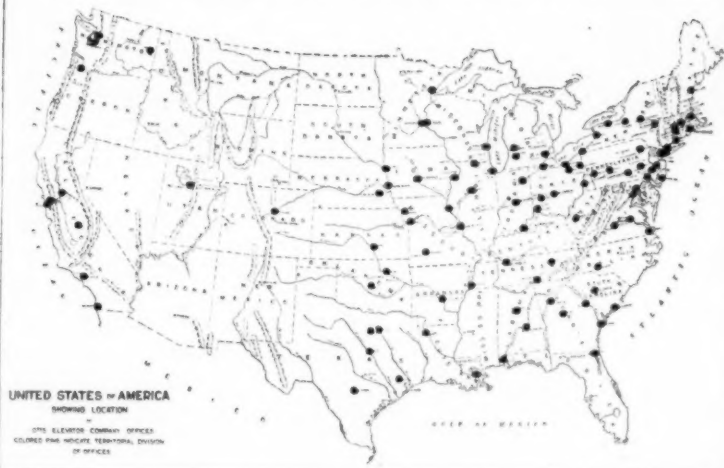
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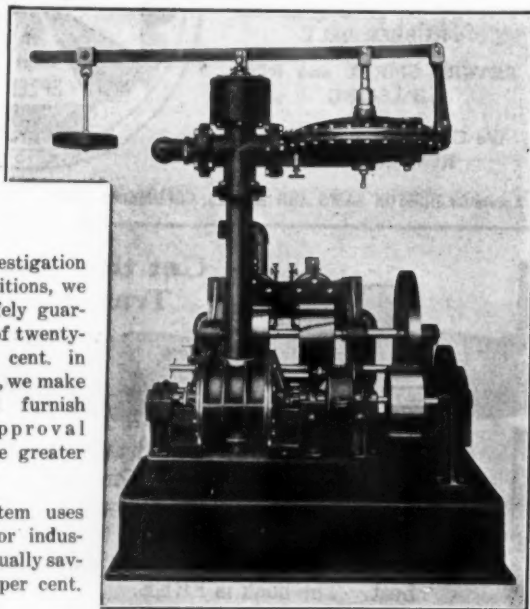
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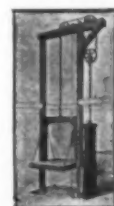
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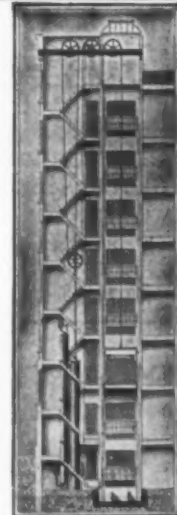


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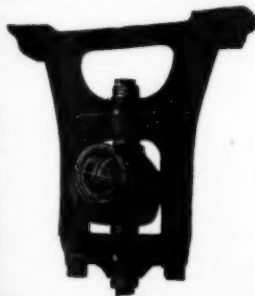
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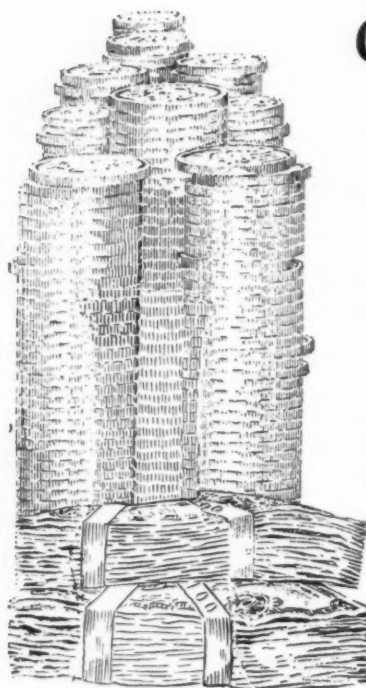


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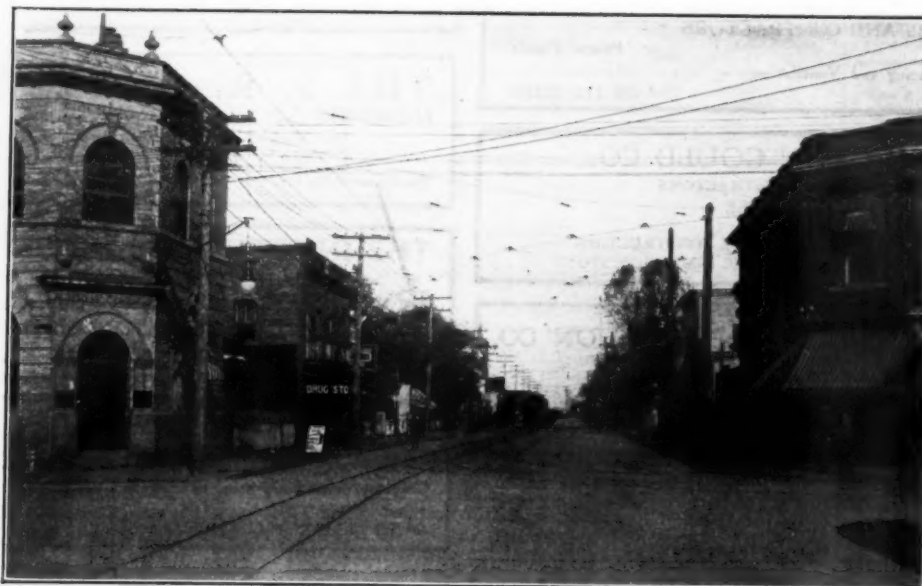
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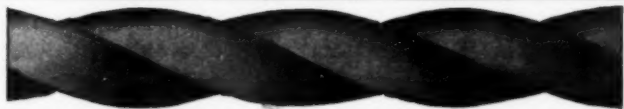
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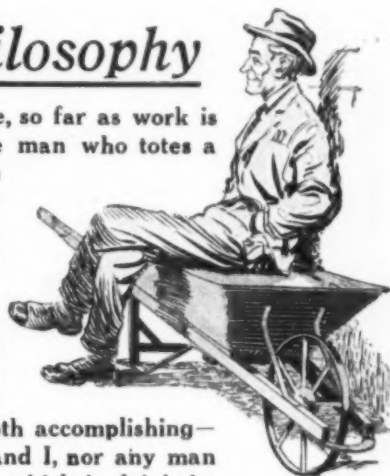
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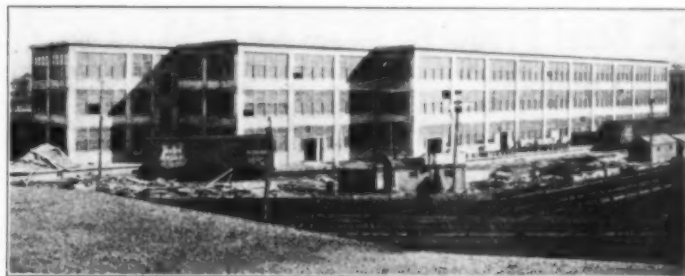
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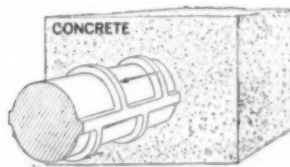
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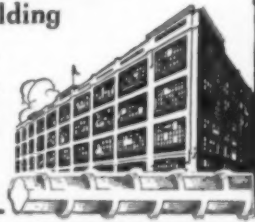
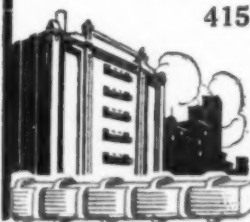
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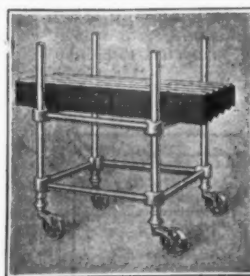
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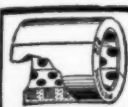


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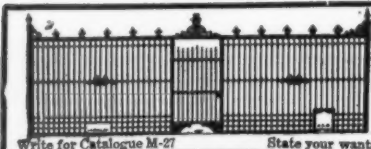


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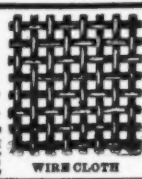
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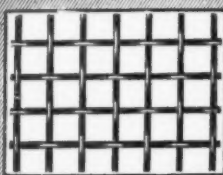
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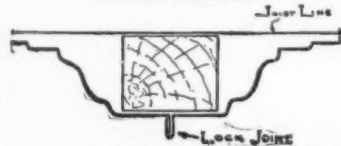
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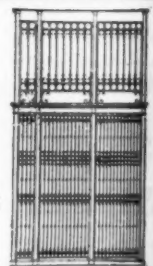
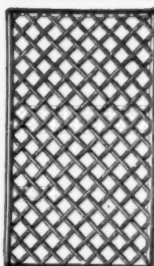
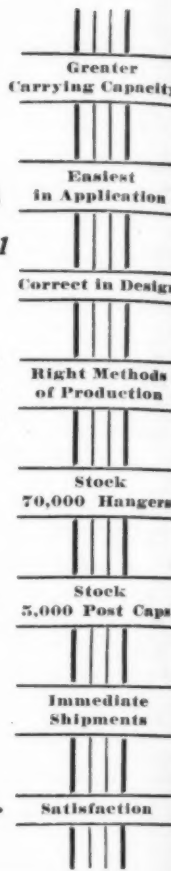
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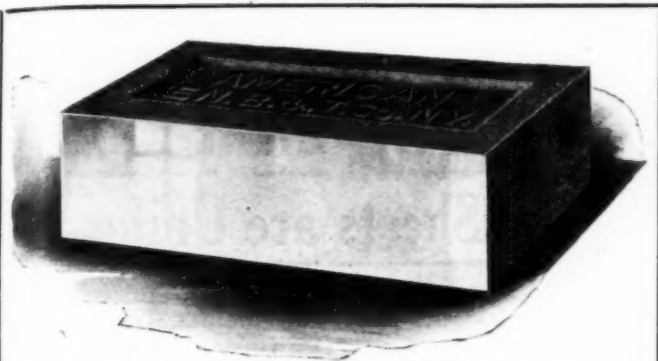
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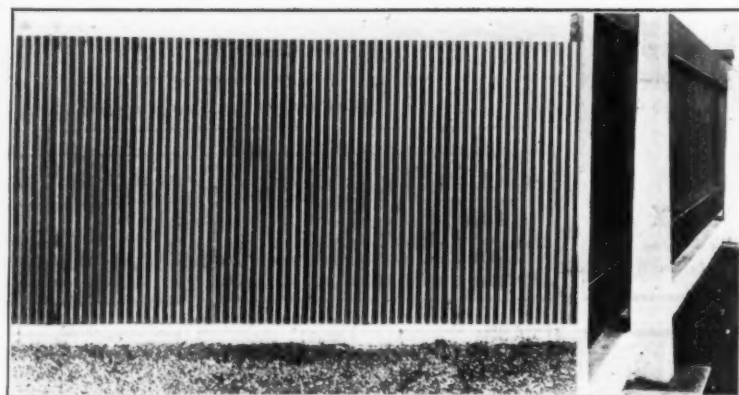
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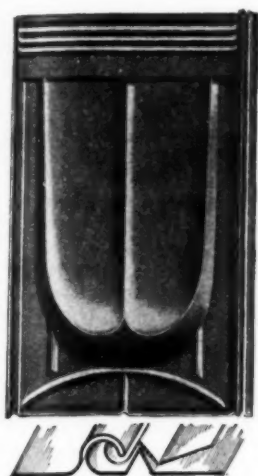
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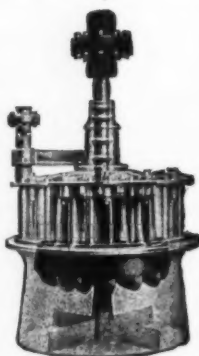
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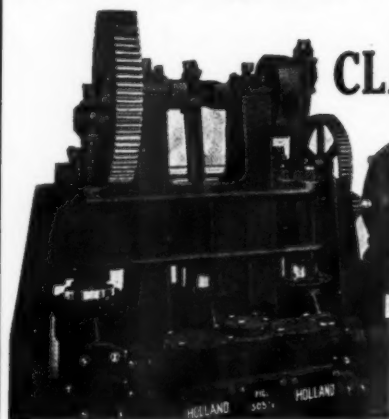
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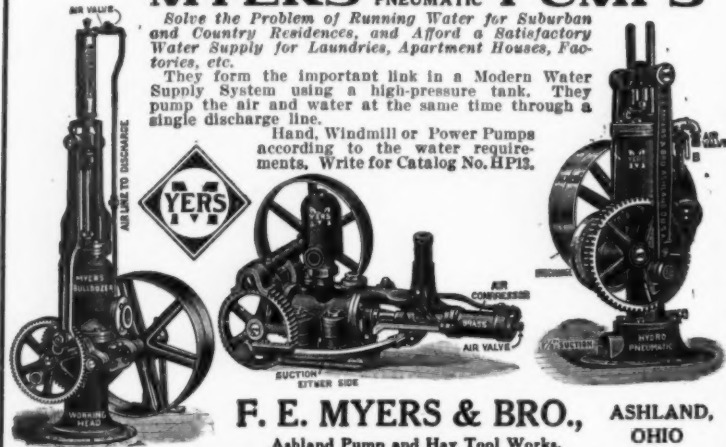
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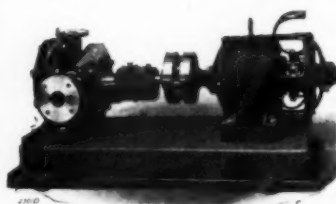


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Let us solve your Pumping Problems. 1915 Catalog on Request.

**EMERSON PUMP & VALVE COMPANY**  
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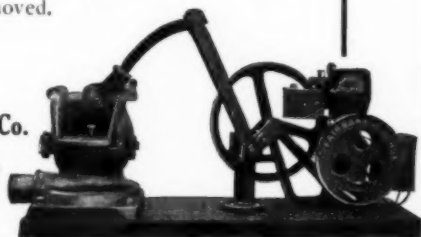
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by cutting out the expense of hand pumping. An Eclipse Engine and Diaphragm Trench Pump will do the work of three or four men—runs all day on about a gallon of gasoline. Set is firmly mounted on heavy board base—easily moved.

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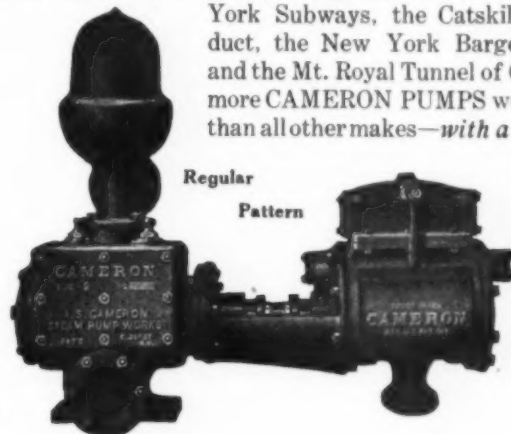
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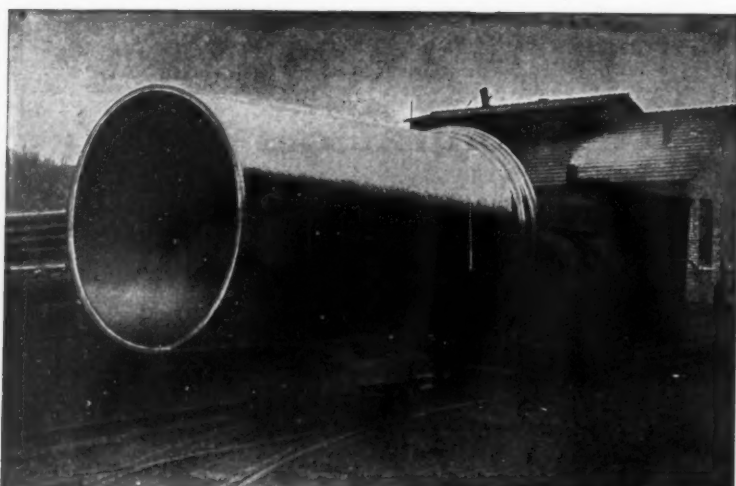
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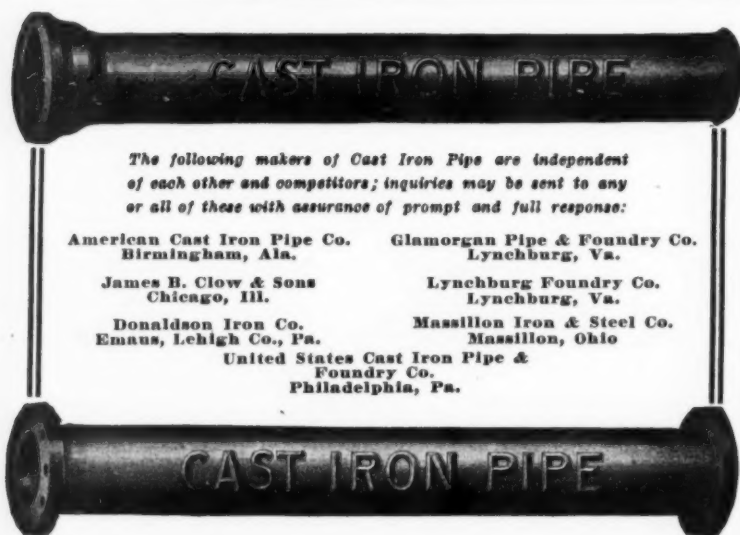
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Wall Coping, Drain Tile, Flue Lining, Chimney Tops, Hollow Tile, Fire  
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Lengths,  
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Over 50,000  
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Continuous Interlocking Seam Smooth Inside

USED FOR

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GENERAL  
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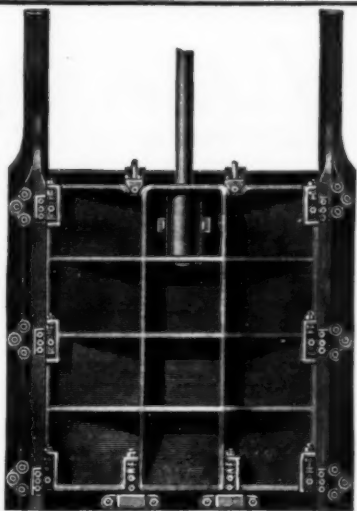


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None Better  
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Have Bronze to Bronze at  
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This construction is embodied in our Flange  
Elbow, Tee, Male and Female and Air Pump  
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Remember those Five "KEWANEE" Reasons

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With No Inserted Parts.  
The "Safety-First" Union

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All Sizes for Pipe Mills  
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This cut illustrates No. 5  
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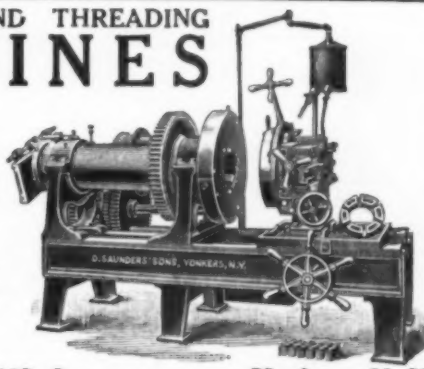
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ALL SIZES, BELT DRIVEN AND DIRECT CONNECTED

For Irrigation, Tanneries, Mine Drainage, Phosphate Mining, Circulating Water  
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For Municipalities and Institutions

Cut shows plant at Roanoke, Va. Operating cost 31 cents per ton.  
Mechanically perfect. Clinker analyses 97½% mineral ash.

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SPARTANBURG, S. C.

is one of the only six women's colleges in the South honored by membership as a standard college in "The Association of Colleges and Preparatory Schools of the Southern States." Its B. A. degree is accepted by the highest grade Colleges and Universities and admits, without further work, to candidacy for the M. A. degree. It has separate science, music, and library buildings; dormitories limited to 190; gymnasium and infirmary; 42-acre campus; and 38 teachers and officers. It is thirty-five miles from the Blue Ridge mountains, and has an ideal winter climate. It owes no debts, and has an endowment. It is accessible North, East, South, and West by six lines of railway.

If you wish a catalogue, address

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**Cut out belt and pulley troubles of the Friction  
Feed by using a Soule Steam Feed in  
your Saw Mill.**

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**E. E. TITUS** FOUNDER and  
MACHINIST

PETERSBURG, VA.

Manufacturer of the Latest Improved

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With Impression Rolls for BASKETS, ORANGE BOXES, ETC., ETC.  
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CONTRACTS TAKEN FOR COMPLETE OUTFITS

**THE STEEL MONARCH OF THE FOREST**



**THE MIGHTY MONARCH STEEL STUMP PULLER**

Double, Triple and Quadruple Power.  
Pulls stumps 7 feet in diameter. Pulls 300  
stumps a day. Prepares stump land for the  
use of all other farm implements, and to  
raise bumper crops. The ONLY Stump  
Puller guaranteed for FIVE YEARS. For  
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HAVE BEEN ON THE MARKET FOR 25 YEARS.  
MORE OF THEM ARE IN USE THAN ALL OTHER MAKES.  
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When YOU buy FOLLOW THE SOUND JUDGMENT OF EXPERIENCE.

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**CROSS TIES**

AND SAVE THE WASTE OF STUMPAGE

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**Most Complete Saw Mill**

BUILT IN THE SOUTH

**\$175 BUYS IT**

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Swage your Chisel and Solid Tooth Circular  
your Band, Gang and Cylinder Saws with

**THE "SIMPLEX"**

The only 8 in 1 Roller Die Swage made  
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**THE YOUNGSTOWN SHEET AND TUBE  
COMPANY**



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We believe the average buyer of products is concerned less in the methods of securing quality than in the fact that the quality is obtained. The fact that we have sold our products in ever-increasing quantities is evidence that there is no misapprehension on the part of the buying public as to their quality. We follow a policy of systematic research and make careful tests of all of our raw materials and finished products.

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**PILE DRIVERS**

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Price \$4.00 a year, or six months for \$2.00

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The Best "ads" are the briefest. An Illustration is worth a thousand words of description and far more effective.

Our specially designed "ads" will tell your story with greater results and in less space. Try them out and note the difference.

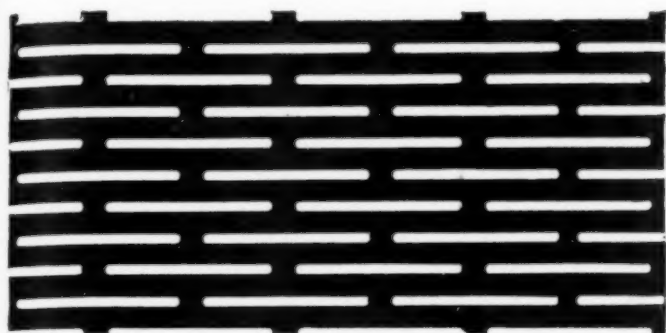
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Call St. Paul 4194, or write us and our representative will call with some trade pulling "specimens" from our Idea Department.







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### Perforated Screen Plates and Sheets

For Ores, Coal, Stone, Gravel,  
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*Our new catalogue will interest  
every user of perforated metal.*

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Write for Copper, Brass, Tin, Zinc or Aluminum Catalog.

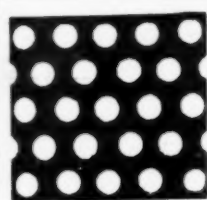
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Cotton Seed Oil Work A Specialty  
*Send for Samples*  
**ERDLE PERFORATING CO. Rochester, N. Y.**

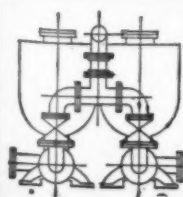


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for drying all kinds of  
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35 years' experience

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## AUTOMATIC SEWAGE EJECTORS

SIMPLE, EFFICIENT, ECONOMICAL

Also Miller Flushtank Siphons, Sewage Disposal  
Apparatus, Centrifugal Pump Outfits,  
Sewer Jointing Compounds

**PACIFIC FLUSH-TANK CO.**

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**INTERNATIONAL CREOSOTING AND CONSTRUCTION COMPANY**  
**GALVESTON, TEXAS**  
TIMBER SUPPLY—The Best from Louisiana and Texas  
—CREOSOTED—  
We are in position to do all classes of framing before  
treatment.  
Capacity 100 million feet B. M. per annum.  
Easy access to New Orleans and all Gulf ports west  
of Mississippi.  
Northern points served to advantage.  
Western Union, A. B. C., and American Lumberman Telecode  
WORKS: Texarkana, Texas, and Beaumont, Texas. Address General Office, GALVESTON, TEXAS

**ALWAYS ON DUTY**

**Reilly Improved Creosote Oil Permanently Preserves**

TIES                      PILING  
POLES                  CROSS-ARMS  
BRIDGE TIMBERS      PAVING BLOCKS

Reilly Improved Creosote Oil never leaches or washes out. It is non-volatile and remains in the timber. It is unaffected by extremes of climate and preserves wood in its entirety. Prompt deliveries in large or small lots.

**Republic Creosoting Company                      Indianapolis, Ind.**

**NATIONAL LUMBER & CREOSOTING CO.**  
Manufacturers of Lumber, Ties, Timbers, Piling, Poles and Paving Blocks  
TREATING PLANTS  
TEXARKANA, ARK.      Sales Office—HOUSTON, TEXAS      HOUSTON, TEXAS

**SOUTHERN CREOSOTING COMPANY, Ltd., SLIDELL, LA.**  
U. S. A.  
Twenty-eight miles from New Orleans, La., surrounded by the finest  
timber lands in the South. Facilities for shipping by water and rail.  
Creosoted Ties, Telegraph Poles, Cross Arms, Timber, Piles and Paving Blocks  
Capacity, 22,000,000 feet per annum.  
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Creosoted Cross Arms, Lumber, Paving Blocks, Piles, Poles and Ties  
Private free wharf for ocean vessels      Capacity 100 million feet board measure  
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**PENSACOLA, FLA.**  
PAVING BLOCKS, BRIDGE TIMBERS, CROSS  
TIES, CROSS ARMS, PILING AND POLES  
SOUTHERN PAVING CONSTRUCTION CO., GENERAL OFFICE,  
CHATTANOOGA, TENN.

**CREOSOTING                      WOOD BLOCK PAVING**  
SOUTHERN WOOD PRESERVING CO.      RAILWAY TIES AND TIMBERS  
ATLANTA, GEORGIA      Cross Arms      Poles



## Mead-Morrison

### Double Drum "Standard"

## HOISTING ENGINE

Cut shows this engine with der-  
rick swinging engine in front.  
An efficient derrick-operating  
outfit.

M-M Hoisting Engines are al-  
ways reliable and efficient.

Our representatives  
would be glad to give  
full details and printed  
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East Boston, Mass.

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1428 N. 20th St.

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830 Equitable Bldg.  
NORFOLK  
810 Bank of Commerce Bldg.

## The "News" in Advertisements

**L**ET us lay aside the dollars and cents angle of advertising and consider advertisements from the human interest point of view.

An advertisement is a news item. It tells who, why, where and when. It speaks the language of our business life and therefore comes close to us.

In these days the best in Writerdom and Artland contribute to the interest of advertisements. We find Wilbur D. Nesbit, a writer of advertisements; Charles Dana Gibson an illustrator of them.

To locate the best specimens of the work of the modern engraver and photographer we must turn to the advertising sections of periodicals.

A reading of the advertisements in a recent issue of MANUFACTURERS RECORD brings to light much interesting information: Photographs and description of—a canvas belt which carries on its surface 250 tons of crushed stone per hour; one of the finest concrete bridges in America; a convenient form of construction for groups of houses for workmen; an outfit for cutting forms

or other millwork which is alleged to do the work of six men; wire cables in use on the Panama Canal; streets in California and Maryland cities; different styles of auto trucks used by American manufacturers, and many other engineering, contracting and manufacturing accomplishments.

Draw on your imagination for a moment. Suppose the advertising section of MANUFACTURERS RECORD were a street of the earlier centuries and the advertisements were criers on this street, telling the manufacturers' stories to the populace. Wouldn't it be very interesting indeed to walk down this street?

In the reading of these stories of manufacturers you gain the interest, as well as the added pleasure and advantage of clear thinking and the storing in your memory for future use of the valuable information they contain.

Read the advertisements,

- for the "news interest" they contain,
- for their educational value,
- for the life and vitality of the story they convey.



**MACHINE SCREWS**

Supplied in One Gross  
Packages or in Bulk

A Complete Stock at All Times

**SPECIALISTS**

In the Manufacture of

High-Grade Rivets and Special  
Screws of all kinds and from all  
grades of material.

If you favor us with one  
order we shall expect more.

Do not forget to send sample  
or sketch when requesting  
prices.

Also state quantities desired.

Catalog for the Asking

**THE PROGRESSIVE  
MANUFACTURING CO.**  
TORRINGTON, CONN.

High grade work at satisfactory prices

**Phoenix Iron Works Company**

MEADVILLE, PA.

**Gray Iron and Semi-Steel  
Castings**

Permit us to bid on your requirements

**Malleable Iron Castings**

of Highest Quality

Annual Capacity 25,000 Tons.

Castings of all descriptions furnished.

Send Blueprints or Samples for Estimates.

**MISSOURI MALLEABLE IRON CO.**  
EAST ST. LOUIS, ILL.

**MALLEABLE IRON CASTINGS**

High Tensile Strength

Exceedingly Tough

We are equipped to make large and small castings.

Prompt Shipment Our Specialty

WRITE US.

**GENERAL MALLEABLE COMPANY, Warren, Ohio**

**CASTINGS GREY IRON**

**D. F. HULL'S SONS**

**Hagerstown, Md.**

We make a Specialty of Castings of All Kinds

**MALLEABLE IRON  
CASTINGS**

**THE MARION MALLEABLE IRON WORKS**  
MARION, INDIANA

**A BOOK about MACHINERY for GRINDING and SEPARATING  
FREE**

It fully catalogues the Raymond Pulverizing and Air Separating System, yet it is a  
good deal more than a catalogue, and is full of information valuable to any company  
which reduces any material to powder. Ask for a copy.

RAYMOND BROS. IMPACT PULVERIZER COMPANY

1304 North Branch Street, Chicago, Ill.



The right temperature in factory or office will raise the  
working capacity of your force.

Keep the air fresh and cool with

**Sturtevant**  
(REG. U. S. PAT. OFF.)

**Electric Propeller Fans**

They will remove foul air, steam, vapors. Will draw  
hot or cold air from one department to another.

They pay for their original cost and upkeep, and can  
be installed in a very short time in any part of factory or  
office.

Get Bulletin 208-N

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And All Principal Cities of the World

**The New Agriculture**

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THIS  
FREE  
BOOK**

FOR 2,000 years most  
farmers have culti-  
vated only 6 to 8 inches  
of soil. They have spent  
millions of dollars adding  
to these 6-inch-farms plant  
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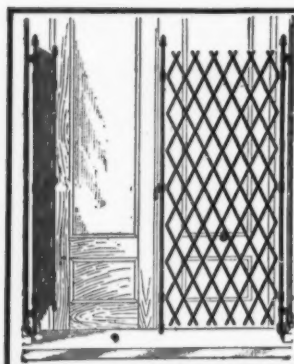
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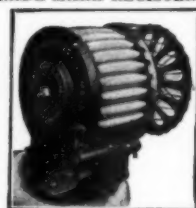
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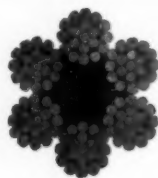
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# MANUFACTURERS RECORD

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## TO ADD TO THE SOUTH'S INDUSTRIAL POWER.

IN the flow of the Tennessee River is a force capable of development under present conditions of 2,000,000 horse-power, and a greater quantity if full provision were made for storage of surplus water in its drainage area. The industrial potentiality of the stream may be better understood, perhaps, in the light of the fact that its 2,000,000 possible horse-power is equal to two-fifths of the total primary power of all kinds now developed for manufacturing in the whole South. Formed by the junction of the French Broad and Holston rivers, a few miles above Knoxville, the Tennessee River extends 652 miles through Tennessee, Alabama and Kentucky to a junction with the Ohio River at Paducah. With its tributaries it forms a system of internal waterways navigable by steamboats for 1300 miles and by rafts and flatboats for 1000 miles more. It drains 44,000 square miles of Virginia, North Carolina, Georgia, Tennessee, Alabama, Mississippi and Kentucky.

Seven States are, therefore, immediately interested in every movement affecting the great river and its tributaries, and the people of these States naturally have their attention directed this week upon the visit of representatives of the executive and legislative departments of the Government, planned to expedite improvements that will fit the river for accomplishing its greatest tasks. Of the maximum horse-power in the river hardly 300,000 have yet been developed. All the year navigation in unbroken sweep of the river is possible for only about one-third of its length, although locks and dams, especially that completed less than two years ago at Hale's Bar, below Chattanooga, facilitate navigation around and above former natural obstacles. Improvement of navigation and utilization of power through hydro-electric development are associated in one of the great projects, that at Muscle Shoals. Probably \$40,000,000 or \$50,000,000 will be expended upon this project should it be fulfilled, and one of its results would be the ultimate development of 650,000 horse-power. In discussing the plan and its calling for an expenditure by the Federal Government of something more than \$18,000,000 within five years, an official report on the part of the United States engineers says:

The existing commerce of the section, as well as the increase which might reasonably be expected, apart from what may be created as a result of the power development, is insufficient to justify so great an expenditure for improvements for navigation alone. But in determining the worthiness of the project there are other criteria that should be considered. It is known that the section of the United States lying within a moderate distance of the Muscle Shoals reach of the Tennessee is in a state of retarded development. It is endowed with mineral, forest

and agricultural resources, which when fully exploited will add greatly to the general prosperity. It is the belief and expectation of those interested in this project that the development and utilization of the power now wasting in the Tennessee River will cause the establishment of manufacturing industries which will utilize the raw materials found in the immediate vicinity. For example, with electric power provided at low cost, metallurgical processes can be employed in the reduction of ore deposits of the region otherwise unavailable for use. Further, that the fertilizers needed for the profitable production of cotton and now brought from great distances can be made at low cost in the close neighborhood of the fields in which it is to be used.

The power development is planned by the Muscle Shoals Hydro-Electric Power Co., looking to an expenditure for power-houses, transmission lines, etc., aggregating \$35,205,000 and providing for an initial installation for the development of 210,000 horse-power, about one-third of the ultimate. It is no wonder that the wide-awake citizens of the Tennessee Valley from Knoxville to Riverton are alive to the opportunity for their section presented in the visit of members of the National Senate and House of Representatives, representatives of the War Department and others from Washington, or that they are leaving nothing undone to impress upon the visitors all of the salient facts bearing upon the desirable undertaking.

Of the 10,000,000 potential horse-power in Southern streams hardly one-fifth has been developed. The South is so rich in other sources of industrial power that it has not until within the past ten or twelve years been as active as it might in assuring the full use of its water-powers. Consequently industrial developments that could have been made are still in the future. The completion of the Muscle Shoals plan will mean such a signal manifestation of hydro-electric possibilities and will so reinforce other successful enterprises of the kind that an impetus will be given to such developments wherever possible in the South to the industrial, agricultural and commercial advantage of that section.

## SOUTH CAROLINA MARL.

NEARLY fifty years ago South Carolina began to mine commercially its phosphate rock, which occurs in an area along the coast between Charleston and Beaufort and extending for about twenty miles inland. For nearly twenty years South Carolina rock was about 95 per cent. of phosphate marketed in this country, but with Florida production beginning in 1888 and Tennessee entering the field in 1894, the relative importance of the South Carolina production declined, and in 1913 amounted to 109,333 tons, compared with 451,559 tons in Tennessee and 2,545,276 tons in Florida. Apparently the point of maximum production in the State has been reached, but the convenient location of large fertilizer plants at Charleston, the ease with which the rock is manipulated for superphosphate, and the fact that there is still a large quantity of 60 per cent. phosphate rock in the State, lead experts to the conviction that the industry has by no means reached its limit. At the same time an influence which may tend to prolong the life of the industry is the movement under way looking to the development of marl beds, which are already resorted to for local use in Aiken, Bamberg, Barnwell, Bekeley, Charleston, Clarendon, Colleton, Darlington, Dorchester, Florence, Georgetown, Hampton, Horry, Marlboro, Orangeburg, Sumter and Williamsburg counties, and has been quarried and calcined for agricultural purposes in one of the counties. Now Commissioner of Agriculture E. J. Watson is in conference with gentlemen of Chicago who are interested in the possibilities of the marl beds as a source

of agricultural lime. It is believed that it is possible to give the marl a greater importance than ever before in agriculture, and the prospect of the establishment of plants to handle it is gratifying.

## CONSTANT CALL OF THE SOUTH.

258,700,000 acres of land in the South are covered with forests capable of yielding approximately 1-200,000,000,000 feet of lumber.

56,106,000 acres of land in the South are underlaid with coal of a volume approximating 525,000,000,000 tons.

454,200,000 acres of land in the South, some of it covered with forest growth, some of it underlaid with coal, are ultimately available for productive agriculture.

The South is producing in normal years—

\$472,000,000 from mines and quarries.  
\$590,000,000 from forests.  
\$3,600,000,000 from farms.

Materials from this production aggregating \$4,062,000,000 in value enter into the products of Southern manufacturing valued at \$3,900,000,000 and into exports to foreign lands valued at \$808,000,000.

The bases of this exhibit are sketched in the following tables, one detailing by States the areas of coal lands, forest and potential farm lands, the other the value of the mineral output, of the forest output and of farm products, not including livestock. In recent years, all of the figures being official save those in the careful estimate of farm products:

## Basic Natural Resources of the South.

States.	Coal area. Acres.	Forest area. Acres.	Possible tillable area. Acres.
Ala. ....	5,395,200	20,000,000	25,410,000
Ark. ....	1,077,760	24,200,000	25,500,000
Fla. ....	20,000,000	20,000,000	25,550,000
Ga. ....	106,880	22,300,000	30,780,000
Ky. ....	10,668,800	10,000,000	20,540,000
La. ....	16,500,000	16,500,000	22,040,000
Md. ....	291,200	2,200,000	4,860,000
Miss. ....	17,500,000	17,500,000	24,800,000
Mo. ....	10,688,000	18,300,000	33,880,000
N. C. ....	38,400	19,600,000	24,490,000
Okla. ....	6,400,000	8,000,000	33,880,000
S. C. ....	12,000,000	12,000,000	16,000,000
Tenn. ....	2,816,000	15,000,000	19,980,000
Tex. ....	6,528,000	30,000,000	117,600,000
Va. ....	1,216,000	14,000,000	19,500,000
W. Va. ....	10,880,000	9,100,000	9,450,000
Total....	56,106,240	258,700,000	454,260,000

## Values of Primary Southern Products.

States.	Mineral output. Value, 1913.	Forest output. Value, 1909.	Farm products. Value, 1913.
Ala. ....	\$34,660,545	\$34,838,000	\$227,596,000
Ark. ....	6,780,760	57,554,000	157,951,000
Fla. ....	10,508,016	35,177,000	52,504,000
Ga. ....	6,525,792	40,510,000	297,388,000
Ky. ....	26,845,579	29,224,000	158,944,000
La. ....	21,011,828	67,596,000	129,377,000
Md. ....	11,292,723	14,483,000	63,130,000
Miss. ....	1,143,472	50,571,000	194,794,000
Mo. ....	54,001,088	31,668,000	251,372,000
N. C. ....	3,739,696	45,563,000	229,946,000
Okla. ....	80,168,820	6,042,000	151,672,000
S. C. ....	1,464,150	18,055,000	189,701,000
Tenn. ....	21,052,931	38,968,000	175,158,000
Tex. ....	31,666,910	41,345,000	548,417,000
Va. ....	17,178,580	45,974,000	172,162,000
W. Va. ....	143,640,933	32,762,000	78,774,000
Total....	\$471,681,523	\$590,330,000	\$3,078,886,000

Because the present year is abnormal is just the reason why these facts of normal times should be

kept in mind by the South and by the rest of the country.

Abnormalities must pass.

Natural resources abide.

They are unaffected materially save only as they are converted to the use of man. Usually any halting in such conversion is followed by greater activity than ever before in their utilization.

The facts justify elaboration. First, as to minerals. From the store of 525,000,000,000 tons of coal are mined annually 143,000,000 tons. Their value is \$154,278,000, which, with \$116,000,000, the value of the output of petroleum, and \$46,000,000, the value of natural gas, constitutes 67 per cent. of the value of the South's annual mineral production. To this value of fuels for industry should be added \$15,000,000 for stone, \$12,000,000 for phosphate rock, \$8,000,000 for iron ore, \$5,000,000 for sulphur, and the smaller values of more than 50 other useful minerals that are produced in commercial quantities in the South, including bauxite, the basis of aluminum; manganese, monozite, zircon, barite, fuller's earth, mica and pyrite, all of which, with the sulphur and phosphate rock, are produced in this country, almost exclusively by the South; salt, lead, zinc, copper and others.

Should the time ever come of approach to depletion of other mineral fuels, the South has 84,300 square miles of land underlaid with lignite, some of which has already been made available, and a vast area along the seaboard containing beds of peat. Besides, there are 20,000,000 horse-power latent in Southern streams, of which only between 1,000,000 and 1,500,000 horse-power has been developed hydro-electrically, some of which development is to become the foundation of great chemical and metallurgical industries.

Proper handling of these streams for power must involve most practical conservation of the forest cover of the head springs of the rivers, a task that has already been begun in the Appalachian reserve. Such forestry is bound to have its effect upon lumbering operations generally and will tend to prolong the life of standing timber and to induce reproduction. This policy is absolutely essential, for in thirty years the cut of lumber in the South increased from 21 per cent. of the total cut of the country to more than 50 per cent., the South's cut now being 53.9 per cent. of the total cut of softwoods and 59.7 per cent. of the total cut of hardwoods. Conservation is also called for specifically in the case of the pine forests, yielding about \$25,000,000 worth of naval stores a year, an industry monopolized by the South, but the big desirable change to come is in the manufacture of the lumber after it has been cut from about 30 per cent. of the total.

For in too many instances the forests have been treated as though they were mines to be exploited completely without regard for the future instead of as farms to be maintained and improved. The very lavishness of the gifts of nature has encouraged in the past wasteful methods with many of its resources, including its arable lands. To bring those lands under the plow it was often necessary to remove the forest. As long as there was plenty of woodland there was little incentive to care for the land. Now the inroads upon the forest are approaching the point where good sense urges economy in cutting and provision for reforestation.

Nevertheless, in spite of the widening area of cleared land, of the total area of 384,000,000 acres in farms, part of the 454,260,000 acres that are capable of being tilled profitably, only 175,000,000 acres are improved, and a much smaller acreage produces annually field and orchard crops to a value of \$2,500,000,000. But that acreage has demonstrated thoroughly the South's agricultural possibilities. As far as continental United States is concerned, the South produces all of the cotton and rice, with the exception of a comparatively small quantity in the Southern part of California; all of the cane sugar, most of the tobacco, sweet potatoes and peanuts and an increasing volume of citrus fruits, and practically shares in the production of every other crop common to the country. It is a location ideal as to soil and climatic conditions for the growth of early fruits and vegetables for the markets of the country, and those markets are calling ever and ever more lustily for such products. Already worth \$100,000,000 a

year, these truck products may be regarded as merely exhibits of what the South may do in that field.

Indeed, neither in mining, in lumbering, nor in farming, nor in the use of the materials thus afforded for manufacturing has the South begun to touch the high points of its development. Its present activities are supporting its population of 34,000,000. Its potentialities, fully measured and used, will mean support of a population of 102,000,000, about that of the whole country today, and then the South would not be as densely settled as is New England, for instance, with comparatively few of the South's natural riches.

To come into its own, here outlined, the South must build thousands of miles of improved highways, steam railroads and electric lines. It must chain its water-powers now running to waste, establish its forests upon an enduring basis, bring its present farm acreage up to its greatest efficiency, instead of being content with one-third or one-half performance; add to its arable acreage by removing the water from millions of acres of wet lands and by bringing to the plow other millions of acres of cut-over timber lands, and see to it that the 18,000 miles of its waterways are made fully navigable and used to the best advantage in the furtherance of domestic and foreign trade.

The tasks are many and most of them are large ones. They call for patience and persistence, for courage and coolness, for energy and ambition. But they call constantly. Obstacles will be met. Interruptions will occur. But the obstacles will be overcome, as they have always been overcome, and the interruptions will become spurs to renewed endeavor, as has happened before. The latest interruption of the past few months is becoming a memory, and what appeared last fall to be almost unsurmountable obstacles are disappearing. The mere fact of taking stock of its opportunities will help the South to seize them.

#### BASED UPON BONDS.

IN the past four years Baltimore has issued \$34,047,900 of city stock and the taxable basis of the municipality has increased by \$109,967,145 to \$628,135,168. The proceeds of the sale of stock have been used in the extension of the modern sewerage system, begun ten years ago; increased water supply, including a filtration plant to be in operation shortly; opening new streets and repaving old ones; construction of a municipal pier; the building of a boulevard, following the route through the city of Jones Falls, now become part of the sewer and drainage system, and other public improvements. In four years 459 miles of sewers, large and small, have been constructed; 27 miles of new streets have been opened, nearly 129 miles of improved paving have been laid, additions and improvements of the public water service have been completed, a high-pressure pipe-line fire-protection system has been established, the building of a belt-line railroad has begun, a polytechnic institute and eight other school buildings have been erected, and the use of historic Fort McHenry for a water-front park across the river from the completed public recreation pier has been acquired. Details of these improvements, which have really made a new Baltimore, are elaborated in the fourth annual message of Mayor James H. Preston, who correctly finds in a community a growth of a spirit of pride in a city and a desire of citizens to co-operate in its improvement, and expresses the ambition to have his administration in the coming four years one devoted to making Baltimore "the most modern city in the country, with the best paved and cleanest streets, with the best sewerage system, with the best system of public parks, with a splendid school system and a large percentage of new school buildings."

One of the most significant facts about this exposition of municipal progress, which really had its inception as the result of the devastating fire of 1904, but which the forcefulness of Mayor Preston, exerted for four years, has made an accomplished fact, is the large part played in it by bonds. Baltimore is no stranger to city stock or bonds. They have been at various times a favorite means of pro-

viding for permanent improvements, but in the past eight or ten years the new spirit of Baltimore has been manifested as never before in voting such securities under realization that big undertakings cannot be carried through economically through piecemeal appropriations of moneys raised by direct taxation of the year, but that the bond issue, with proper provision for interest and sinking fund, and, what is of more recent growth, that serial bonds, none of them extending beyond the possible life of an improvement, are the best kind of issues for highways. The way in which the proceeds of Baltimore's recent bond issues have been expended is a reasonable guarantee that the enlarged taxable basis of the city thereby induced will help to care for the bonds when they mature.

#### BUILDING HIS OWN FLOUR MILL.

THE man who made two blades of grass to grow where only one grew before must now give place to Charles M. Kelly of Lake City, S. C., who not only raises wheat himself, but is investing \$5000 for a grist, feed and rolling mill with a daily capacity of 25 barrels of flour. In explanation he writes to the MANUFACTURERS RECORD:

This mill is put in for the accommodation of the surrounding community and to encourage the planting of wheat in this section. There are no flour mills nearer than 25 miles, and quite a large acreage is in wheat in this section. So for the accommodation of this community I have undertaken to put in a small plant, hoping thereby to encourage the planting of wheat and getting our farmers out of the old rut of planting cotton alone. More wheat and grain mean more cattle and hogs; more cattle and hogs mean more prosperity to our farmers; more prosperity means better schools and a general moving on all lines. I am a small farmer myself, but have made my farm sustain itself in grain, hay, pork, lard, etc. I plant some cotton only as a surplus crop. I have all of my last year's cotton on hand now waiting for a better price. I haven't got to sell. My barn is full of corn, hay and oats, and my smokehouse has a year's supply of good home-cured bacon and lard, and I hope soon to have some home-ground flour in there, too. Plenty of milk, butter, chickens and eggs, and pretty soon we will have plenty of vegetables and fruit. So you see that I am only a small farmer living very much at home.

If we may be permitted to suggest, the word "small" used by Mr. Kelly is applicable only to his farm. There seems to be nothing small about him. In his operation of his small farm he has displayed a breadth of view and wisdom which spell success in any legitimate undertaking. He does not have to sell even last year's cotton. He is self-contained. But he wants others to have like good fortune. So he is adding a flour mill to his enterprises in the hope that his neighbors will thereby be encouraged to plant more wheat and approach the state of independence which he enjoys. Suppose there were 10,000 Charles M. Kellys in the cotton belt of the South?

#### COTTON.

IN the first week of May 130,062 bales of cotton came into sight, bringing the total movement since the opening of the present season on August 1 to 14,318,323 bales, or only 102,724 bales fewer than the movement in the same period of the preceding season. With 130,062 bales coming upon the market, 223,165 bales were exported and 98,103 bales were taken by American mills, reducing the stocks at interior towns by 42,124 bales to 705,011 bales and the stocks at United States ports by 149,082 to 1,229,594 bales, a total reduction in stocks of 191,206 bales. In spite of the unprecedented situation of the past months, exports in 280 days of the present season are but 902,753 bales fewer than in the same period last season, and the takings by American mills only 66,940 bales fewer. Cotton facts in the South in May, 1915, are as different from what they were in September, 1914, expected to be as a blue sky from a thunder cloud. A quality inherent in the South is largely responsible for that. When the story of the change in eight months is written it will contain more than one interesting and valuable lesson.



# Southern Bankers' Views of Material Conditions in Their Section

"The Southern people are liberal spenders of money when times are good, and when hard times come they put on the brakes and take a fresh hold and grin and bear it. Their recuperative powers are no less surprising than their fortitude."

In that sentence, written by a North Carolina banker, is epitomized the history of the past nine months in the South. It describes the attitude in the Fall of the great body of Southerners who, in common with the population of other sections of the country, were at first materially affected by the demoralization in business and industry consequent upon the intensifying of inactivities by the outbreak of the war in Europe. The sentence condenses the evidence that the people are giving now of their resiliency, after taking a fresh hold. At the same time it forecasts the certain conduct of the people of the South upon the return of prosperity, of which there are already many unmistakable indications.

In increasing volume have come to the MANUFACTURERS RECORD during the past two or three months many positive suggestions of reviving activities of different kinds in the South. Betterment of the cotton situation since the first of the year has in itself been a great factor in strengthening the ability of the South to adjust itself to conditions which last summer seemed so depressing. At that time other parts of the country, unable to realize fully the knack of the South in "grinning and bearing" and its inherent tendency to take a fresh hold, were led into misconception of the bottom facts. There was temporary forgetfulness of the resourcefulness and adaptability of the South that have more than once in the past quarter of a century been signally manifested. The misconception seems to persist here and there in spite of the development of more and more facts to the contrary, and as part of our long-sustained work, of overcoming even the slightest lingering wrong impression of the inherent strength of the South, we recently asked a number of Southern bankers for their views of present conditions in their section in the light of the recent past. In reply we have received a number of interesting letters, all of them manifesting the conservatism which naturally belongs to the element in the community which has its touch upon the public pulse and is largely depended upon to assist in remedying public troubles.

No notable expansion of activities of any kind partaking of the nature of a "boom" looms upon the horizon of these bankers. It is well that such is not the case. In present circumstances such a manifestation would be almost catastrophic. It would be the sure symptom of an unhealthy state, justified by no Southern fact. Some of the letters even reflect slowness in the return to normal conditions, but there is nothing discouraging in that. Influences responsible for slackness in two or three lines of production have not entirely passed. But the significant fact, the one to be specially kept in mind by everybody interested directly or indirectly in Southern prosperity, is the tone of cheerfulness and courage generally pervading the letters. This has its reason in the immediate outcome of the stress of the late Fall and early Winter, taking form in wise provision for the present and broad outlook for the future, while in some respects a novelty, promises to become a permanency to the everlasting advantage of the South.

With hardly an exception the letters express expectation of good crops, and in several instances emphasis is laid upon the benefits to be derived from diversification following a reduction in the cotton acreage and the establishment of packing-houses or other industries encouraging farmers to give attention to livestock and to other crops than cotton. There are revelations of the success of growers in holding their cotton of 1914 until they could receive for it the better prices that have been paid in the past three or four months and of their promptness, upon the sale of their cotton, in meeting their obligations and in preparing for the coming season. In one county of Georgia the farmers met their immediate bills by the sale of cane and syrup, cattle and hogs, and having received good prices for their cotton, were able

to put money in bank. In Louisiana and at other points where the boll-weevil had tended to turn the thoughts of the growers from cotton, are signs of a decline in the credit system which has been such a drawback upon Southern agriculture, and 500 silos built in Louisiana last year, with as many expected to be built this year, is a striking demonstration of the trend toward diversification. Even where actual improvement has been comparatively slow, general relief in the money situation has created a better feeling and a fair return for crops that have been made at a minimum cost will strengthen financial conditions.

Making crops at a minimum cost is a manifestation of the widespread policy among the farmers to place themselves upon a sound financial basis permanently, a policy that has quietly but persistently developed and involving living within one's income as never before, and care and discrimination in making purchases of many kinds.

Notwithstanding this policy, which naturally has resulted in a temporary narrowing of markets, building operations are returning to normal, public and private improvements are under way, and presently the full effects will be felt by primary industries and the buying of supplies of implements, machinery, lumber, fertilizer, etc., will be resumed in its normal proportions, but upon a basis more satisfactory than ever before to both buyers and sellers.

The letters from bankers thus summarized are published in the following columns:

## ALABAMA.

### HAPPY BLENDING OF AGRICULTURE AND MANUFACTURING.

#### FIRST NATIONAL BANK,

Anniston, Ala.

The conditions in this territory have continually grown better since the first of the year, and our people are very optimistic as to the future. This section has a very happy blending of the industrial and agricultural. Our industries have been running on good time for the past few months, and are fast approaching normal, and the farmers are diversifying their crops, are paying more attention to small grain and growing of livestock than ever before. The business of the jobbers has reached normal as compared to previous years. Conditions of banks are good, and the outlook for a prosperous year is very bright.

W. H. WEATHERLY, President.

## ARKANSAS.

### CROP PROSPECTS THE BEST IN YEARS.

#### BENTON COUNTY NATIONAL BANK,

Bentonville, Ark.

Our crop in 1914 was one of the best all-around crops that we have had in a good many years, but owing to the general conditions all over the United States, and even the entire world, we did not get the price for our products that we ordinarily get, and what we would have gotten had conditions been different.

We do not raise cotton in this part of the State, our main crop being fruits of all kinds. Our prospect for this coming year in the way of crops is one of the very best that we have had for a good many years. The peach and apple crops are good. If conditions will continue to get better for the next three or four months, as they have in the past three or four, we will no doubt get a good price for our fruit. This being the case, we will be in better condition this coming fall than we have for several years.

E. C. PICKENS, Cashier.

### DEMAND FOR LUMBER HARDLY NORMAL.

#### FIRST NATIONAL BANK,

Helena, Ark.

We have just had a good rain, and the outlook is very promising for an average crop.

However, the cotton acreage has been decreased from 10 to 20 per cent. in this vicinity and the grain acreage has been increased possibly 25 to 30 per cent. Quite a lot of wheat has been sown, and the prospects look bright for an average yield.

The demand for lumber is hardly normal, but most of the plants are running at this place, and the manufacturers feel more optimistic.

C. C. AGEE, Cashier.

### FOLKS HAVE DISCOVERED THAT THEY WERE MORE SCARED THAN HURT.

#### BANK OF JONESBORO,

Jonesboro, Ark.

Business conditions have not been any more favorable in many years; in fact, we honestly believe that this section is on the eve of the biggest boom in its history. Our farmers have awakened to the importance of diversification of crops, and they have opened up more farm lands during the past year than ever before, and never has a more hopeful tone been manifested than at present.

Deposits in the banks are holding up, and a great deal of foreign capital is seeking investment here. Our people are thoroughly alive to the fact that last fall they were only scared, and not hurt, and the conditions that prevailed have really been a benefit to this section.

V. C. PETTIE, Cashier.

### FARMERS HAVE PROFITED BY EXPERIENCE.

#### THE CITIZENS' BANK OF PINE BLUFF,

Pine Bluff, Ark.

Conditions in our immediate vicinity are showing some improvement. Our farmers have profited by past experience, and in nearly every instance are diversifying their crops, and right now they are receiving the benefit of the same. A great many of our farmers heretofore directed all their efforts to the production of one crop. This condition has materially changed, and the result no doubt will be of great benefit to everyone in our section.

Crop conditions in our vicinity at this time are most favorable indeed. The planters have accomplished more than at the same time last year, and with a fair price for cotton the coming season our community should be in a most favorable condition.

M. E. BLOOM, Cashier.

## FLORIDA.

### MANIFESTED IN CITY AND TOWN IMPROVEMENTS.

#### THE BANK OF CLEARWATER,

Clearwater, Fla.

Since the first of the year there has been a marked improvement in all lines of business. Bank deposits have increased slightly, notwithstanding the fact that the farmers, on whom banks depend mostly, have suffered materially from low prices of oranges and grapefruits (this being our largest farm product), and the vegetable crop is now being marketed at attractive prices. The cities and towns are growing fast, new houses being erected by newcomers and many improvements being made in the way of hard-surfaced roads by the county and towns. The city of Clearwater is now spending \$75,000 in civic improvements, and other towns around us, Largo, Dunedin, Sutherland and Safety Harbor, are doing the same thing.

Money is easy and plentiful; in fact, we are seeking good paper.

H. W. BIVINS, Cashier.

### NEVER SO MUCH MONEY IN THE COUNTY.

#### DADE COUNTY BANK,

Fort Lauderdale, Fla.

Business is good in Fort Lauderdale, the new capital of Broward county. There never was so much money in the county. Tomatoes are bringing a fine price and quick sale. A new bridge is going over New River, and a large school building going up; bridge will cost \$20,000 and school \$50,000.

DADE COUNTY BANK.

### LUMBER AND CROSSTIES BEGINNING TO MOVE.

#### THE CITIZENS' NATIONAL BANK,

Fernandina, Fla.

Cotton does not enter into either the success or failure of business conditions in this county, probably not more than 5 or 10 bales of Sea Island being raised in Nassau county. Fernandina is one of the largest shipping ports on the Atlantic coast, and has been visibly affected by the war in Europe, in that shipments of phosphate and naval stores have been cut off entirely. Lumber and ties are beginning to move now, and quite recently two cargoes of naval stores have left this port—the first since last October.

A large shrimp cannery has recently been established

here, employing upwards of 300 hands and with a capacity of 800 bushels a day. The shrimp are quite plentiful off this coast, and large quantities are brought in by the many boats engaged in that industry, finding a ready market, for cash, immediately upon docking. A fertilizer plant has just been started on a small scale, making use of the shrimp heads. These are cooked, dried and ground into fine "scrap," which finds a ready market.

Deposits in the two national banks here show an increase since the Comptroller's call March 4 of \$51,000,000, which indicates an improvement in condition of business and a change for the better generally.

C. WARFIELD, President.

#### PROSPECTS BRIGHTER THAN A MONTH AGO.

##### THE FIRST NATIONAL BANK,

St. Augustine, Fla.

Tourist travel this year was at least 25 per cent. less than usual, resulting in diminished sales and merchants having increased stocks remaining and a tightening of credit all around. The only agricultural asset of the county of any moment is the potato section, which, we had feared, was seriously damaged by the cold wave of March 23, which, fortunately, tended to retard the development of the potatoes more than actually killing them. Prospects are, therefore, brighter now than they were 30 days ago. The yield in this section is a little better, perhaps, than last year, and the price is materially higher. It is our hope, therefore, that improvement in conditions in this agricultural section may materially assist us in surviving that which must inevitably be a hard summer.

G. B. LAMAR, Cashier.

#### GEORGIA.

##### CONTINUANCE OF THE WAR DISCOUNTED. THE AMERICAN NATIONAL BANK OF MACON.

Macon, Ga.

There is a better feeling prevailing in this section than has been since the European war commenced. Our people are more economical than usual, and, as much cotton has been sold at 9 cents and above, the financial situation is very much better.

The Federal Reserve Bank in this district has done much to restore confidence and to help financial conditions. Farmers are diversifying their crops more than usual, and we have every reason to believe that a much better time will prevail with us next fall, even though the European war should continue.

L. P. HILLIER, Vice-President.

##### PEOPLE HAVE ADJUSTED THEMSELVES TO AN ECONOMICAL BASIS.

##### FIRST NATIONAL BANK,

Moultrie, Ga.

Conditions in this immediate section have improved beyond our expectations since the first of the year, and our people generally have adapted and adjusted themselves to the most economical basis since the Civil War. Not only this, but they have gone to work with a view and determination to get results never before attained by them, and at the same time with the least cost and expense attached in getting them.

There has not been near the demand for money as compared with the same period last year, and with the loans of the three banks in this place 10 to 15 per cent. lower than last year at this time, compared with the fact that collections were materially reduced this past fall also, only proves further this assertion of economy, and that one fact in itself, as we all know, in the long run spells prosperity to a large degree.

The diversification of crops and the increase in hog and cattle raising brought about mainly through our local packing-house, which the whole country has heard about, is in itself largely responsible for the farmers owing as little money as they do today and the encouraging outlook that seems to prevail.

The deposits of the three banks are a little larger than same period last year, and they do not owe one single dollar of borrowed money.

HOWARD ASHRURN, Cashier.

##### THE INCREASE IN THE PRICE OF COTTON HAS HELPED.

##### THE COWETA NATIONAL BANK,

Newnan, Ga.

Six months ago, paralyzed by six-cent cotton, business here was at a complete standstill. Confidence,

without which business flounders helplessly, was entirely lacking. The farmer, our mainstay, after all, was in the throes of despair. Few had foresight enough to look forward to an immediate betterment of conditions.

Gradually our mills have gone back to their full capacity; some building has been commenced; the increase in the price of cotton has helped, and by close economy our people have come through with less obligations unpaid than the most optimistic expected. A very cheap crop promises to be made, which should bring a better price than last fall.

It will take another good season for the farmer for us to feel normal again, but we feel confident that such will be the case.

J. S. HARDAWAY, JR.

#### WHERE COTTON WAS THE PROFIT.

##### THE FIRST NATIONAL BANK,

Quitman, Ga.

Our farmers, almost to a man, held their cotton in this section for the high prices during the last of January and in February sold then, paid what little obligation they had out and put the balance in the banks. Their Georgia cane and syrup, beef cattle and hogs, which here is ordinarily the profits, this year went to pay the bills, and the cotton is profit.

We have more money in the banks than ever before; our people are trading freely; the banks, merchants and manufacturers are all pleased with conditions.

We are not planting quite as much cotton, but more produce and livestock, which, of course, is better for us in the end. The writer made one shipment of 200 head beef cattle to D. B. Martin & Co. of your city in February.

H. LANE YOUNG, Cashier.

#### KENTUCKY.

##### MARKED IMPROVEMENT IN JOBBING.

##### THE CITY NATIONAL BANK,

Paducah, Ky.

It is with much pleasure that I can say business conditions are gradually getting better. Our jobbing territory is principally in the South, and has shown a marked improvement on account of the upward trend of cotton. The tobacco situation in this immediate locality is improving daily.

JAS. C. UTTERBACK, Cashier.

#### LOUISIANA.

##### AWAY FROM CREDIT SYSTEM TOWARD CASH.

##### THE BANK OF VIDALIA,

Vidalia, La.

Due to the fact that the boll-weevil had nearly put this section on a cash basis, instead of the old credit system, which depended absolutely on cotton, and which usually left the laborer and small farmer penniless at the close of the season, our people were able to survive the low price of cotton last fall because of diversification on the farms, which enabled each small farmer to have his garden, various kinds of livestock, and feed-stuffs, which was an extremely rare condition under the former credit system. The banks throughout the South readily gave their assistance toward marketing the cotton crop, thus enabling a great many farmers to realize nearly 10 cents for cotton that was quoted at 7 cents last fall.

Over 500 silos were erected in Louisiana in 1914, and it is expected that 1915 will show fully 1000.

The farther any country gets away from a lax credit system and the nearer it approaches a cash basis the less extravagance, poverty and business failures and the more success, wealth and happiness, and Louisiana is taking the proper steps through its diversification of crops on its richest alluvial soil to gain recognition as "the garden spot of the Union."

H. B. CONNER, Cashier.

##### COMMERCIAL CONDITIONS RAPIDLY READJUSTING THEMSELVES.

##### BANK OF WINNFELD,

Winnfield, La.

Evidence is accumulating from every angle in the most convincing manner to amply justify the statement that commercial conditions are rapidly readjusting themselves to the war footing. The resources of Louisiana are so well-nigh inexhaustible and the possibilities so limitless, business revivals come with a rush.

Could the people who live in less favored sections appreciate that the opportunities in Louisiana are greater for the person engaged in average-sized undertakings,

whether commercial, financial, agricultural or manufacturing, are greater than in any section in the United States, the avalanche of intruding population would quickly populate the unnumbered square miles of rich land that now does not claim an inhabitant.

The climate is of the best. The cool breezes of the Gulf of Mexico temper the summer's heat to that degree until sunstrokes are unknown.

The productivity of the soil is unsurpassed, and the rainfall is generous to a fault.

The acreage in cotton this year is being reduced probably 20 per cent., and the crops in grain are being increased more than 25 per cent. The condition of the crops is excellent.

B. W. BAILEY.

#### MISSISSIPPI.

##### BANK DEPOSITS MUCH HIGHER THAN FOR TWELVE MONTHS.

##### BANK OF AMORY,

Amory, Miss.

In this part of the country there has been quite an improvement within the last 60 or 90 days. The farmers have all succeeded in making arrangements to finance their crops for this year; business is being run on a much more conservative basis; everyone seems to be more economical, and making it a point to liquidate their indebtedness as much as possible, and the ones that have some money are willing to invest it. In our town I believe there is as much building going on as usual for this time of year; contracts have been made for several nice residences, two or three stores under course of construction, and other improvements in proportion. The farmers held back quite a lot of their cotton until prices improved, so as to bring them out on their last year's account, and taking it all together, conditions are much better at this time than we expected. Our bank deposits are much higher than they have been for 12 months.

C. M. HARRISON, Cashier.

##### DID NOT SUFFER FROM THE DEPRESSION.

##### THE FIRST NATIONAL BANK OF BILOXI,

Biloxi, Miss.

We beg to advise you that with us conditions have been very good all along, and continue so at the present time. We are fortunate in not having suffered any from the general depression last fall.

E. C. TONSMERE, Cashier.

##### AS ACREAGE IN COTTON HAS BEEN REDUCED.

##### BANK OF COMMERCE,

Natchez, Miss.

Your request for a statement showing a change for the better from various sections of the South should be complied with by everyone who is so honored by the South's great "Champion."

It is clear to a well-balanced mind that every section of the South does show an improved condition, due to the efforts of our own people, to people from other parts of our country, who have been attracted here by our vast resources and to the valuable lessons taught by the agricultural departments of our Federal and State government.

In the Natchez district we are well up with other progressive sections. True our cotton and lumber were placed under a cloud by the European war and while these are our chief money products we ourselves have been surprised to see how well we have stood this pressure. The cotton crop of Adams county Mississippi for 1906-1907 was 22,000 bales, produced on 38,000 acres. We have been reducing our cotton acreage annually and rapidly since then, until now we have about 5000 acres planted to cotton. Under the old regime (prior to 1908) we produced little or no crops other than cotton, and if we had continued this one-crop plan up to this date you can well imagine the distress that would have been with us, caused by present conditions; as it is, we continue to prosper in spite of the war. Our farmers now sell cattle and hogs to our local packing plant, corn to our local grist mill and market hay, peas, potatoes, cane syrup and vegetables, which enables them to live comfortably independent of cotton and lumber, further than to use it as security upon which to borrow money. While the price of cotton and lumber compared with other articles of commerce has improved somewhat recently, it is yet below normal. You might say they are the cheapest products on the market today. Knowing the necessity for these two items, it is reasonable to



conclude that they will register the most decided advance in price when the world is at peace.

Thus you see we have even better prospects for the near future. By the introduction of diversified farming, better cultivation and stock raising we have practically done away with the annual credit system, and our merchants, while not maintaining the same volume of business, are enjoying fairly good cash and short credit sales—much safer for them and for our banks.

Keep your eye on the Natchez district.

C. R. BYRNES, Vice-President.

## MISSOURI.

### OPTIMISM PREVAILS.

BANK OF AURORA,  
Aurora, Mo.

Optimism prevails and conditions are improving. Crop prospects are excellent.

### EVIDENCES OF A GENERAL IMPROVED BUSINESS CONDITION.

CENTRAL NATIONAL BANK,  
Boonville, Mo.

We have evidences of a general improved business condition in these parts, especially in the past few months. A spirit of confidence is manifest. Crop prospects were never better. Wheat in excellent condition. Ground working fine. Splendid timely rains. Unusual moisture in the ground, all of which enhances prospects and prices.

WM. SPEED STEPHENS, Cashier.

### PRICE OF ZINC ORE A FACTOR.

BANK OF CARTHAGE,  
Carthage, Mo.

Prospects in general in this locality are improving materially. The price of zinc ore is having a good deal to do with our present prosperity. The prospects for crops in general are excellent, and the local conditions are very good, partly on account of stone industries, which are growing by bounds.

S. C. BOGGESE, Cashier.

### WHERE THERE IS NO CAUSE FOR COMPLAINT.

FIRST NATIONAL BANK OF JOPLIN,  
Joplin, Mo.

Your inquiry bears principally on the situation in the cotton-growing States. In and near Joplin no cotton has ever been produced, so that we, like the people of the North and East, observe that industry only from a distance.

Joplin is in the center of this country's greatest zinc and lead mining district. Due to the European war, the price of spelter has soared to unknown heights, and the price of zinc has fluctuated between \$50 and \$75 per ton, the latter price obtaining last week for ore assaying 60 per cent. (metallic contents).

This is bringing into profitable operation many properties that had been idle for some time, and if it continues for any considerable time should make things hum in general.

In other lines, jobbing, manufacturing, real estate, etc., conditions are very fair, and this section has no cause for complaint.

EDMUND A. BLIEDUNG, Vice-President.

### LEAD AND ZINC PRICES RESPONSIBLE.

JOPLIN NATIONAL BANK,  
Joplin, Mo.

Our principal industry is that of mining lead and zinc, and never before have we received prices equal or near that we are now getting for our output. Therefore, our business condition here since the first of the year has been very good, and our prospects are first-class. Crop conditions are the best.

A. H. WAITE, President.

### MARKED EFFECTS OF PURCHASES ON EUROPEAN ACCOUNT.

THE FIRST NATIONAL BANK,  
Kansas City, Mo.

Kansas City is not a cottonmarket, and there is but very little of the cotton area within the so-called Kansas City district. We are in a livestock, wheat, corn and general agricultural section of the country.

Business in this territory during the past three or four months has shown a decided improvement over that of the corresponding period last year, for the reason that our 1914 crop was larger by nearly 75 per cent. than that of 1913, and sold at increased prices in about

the same proportion. In addition to this, there have been purchased at the Kansas City market within the past six months 65,000 horses and mules for military purposes in Europe, at a cost of over \$13,000,000. The cash derived from these two sources has resulted in greatly increased bank deposits throughout the entire Kansas City district, embracing Western Missouri, Oklahoma, Northern Texas, Kansas, Southern Nebraska, Colorado and New Mexico.

The supply of loanable funds is largely in excess of the demand, and rates are unusually low. Fall wheat came through the winter in excellent condition, and never looked better at this season of the year than it does now, with harvest only five weeks away. The ground is full of moisture, and spring crops and grasses of all kinds are in excellent condition.

Labor is not so well employed as usual, because building operations, railroad work and industrial enterprises are being held back on account of unsettled conditions incident to the European war.

A. C. JOES, Vice-President.

## NORTH CAROLINA.

### BUSINESS NOW ON A MORE SUBSTANTIAL FOUNDATION.

THE FIRST NATIONAL BANK,  
Oxford, N. C.

This is a bright tobacco section, and business activities were not so badly set back as in the cotton section, but were, however, considerably curtailed.

Prices were lower than for the past two years, but our farmers have rallied to meet conditions and are doing more and better work themselves and at smaller expense than heretofore.

Farmers have this year done away with many unnecessary expenses, and we expect this tobacco crop to bring them more surplus money than any crop in the past five years.

We consider business now on a more substantial foundation than in some years, and the future looks good.

W. H. HUNT, President.

### RECUPERATIVE POWERS NO LESS SURPRISING THAN FORTITUDE.

THE MURCHISON NATIONAL BANK,  
Wilmington, N. C.

The advance in the price of cotton has put a different face on business conditions in this section. Fortunately, and largely through the aid of the Treasury Department extended through the banks last fall, the merchants and farmers were able to store and hold cotton. A very large portion of it has been sold at 8 to 10 cents and above, and the advance was an agreeable surprise to most people.

There is very little if any improvements in the lumber trade. Naval stores are bringing only fair prices. Upon the whole, there is a better and more hopeful feeling, though I think it is too early to say that general business revival is assured. The forced economy of people very materially affected the retail trade, and this condition must necessarily continue for some time yet.

The higher price for cotton has doubtless increased the planting for another crop, and whether it shall be large or small, the making of it will cost very much less than under conditions that existed last spring, though many small farmers started the next crop in debt.

The Southern people are liberal spenders of money when "times are good," and when "hard times" come they put on the brakes and take a fresh hold and "grin and bear it." Their recuperative powers are no less surprising than their fortitude.

H. C. McQUEEN, President.

## OKLAHOMA.

### NATURAL GAS AND GLASS SAND AS FACTORS.

THE FIRST NATIONAL BANK,  
Ada, Okla.

Farming conditions in this part of Oklahoma are flattering for a small grain crop. More wheat and oats have been sown in this section than usual. The corn crop is up to a good stand, and the farmers have all been at work getting their crops in good condition; temporarily they have been retarded from this on account of the excessive rains, but in the main crop prospects are good.

Work on the gas field just west of Ada has gone far enough to insure a good field, and this discovery, in connection with the glass-sand deposits in this county, will

no doubt attract glass manufacturers to locate near the gas field, making the citizens of this county very optimistic as to its future.

Quite a number of wells are going down in different directions from Ada, and we feel sure that as soon as they go to the proper depth they will discover a good supply of oil.

A. G. ADAMS, President.

### DEPENDENT UPON OIL CONDITIONS.

FIRST NATIONAL BANK,  
Bartlesville, Okla.

Cannot say that conditions are improving any here to speak of. We are in the oil belt, and depend entirely on oil conditions.

FRANK BUCHER.

### FINE OUTLOOK FOR CROPS.

FIRST NATIONAL BANK,  
Duncan, Okla.

The conditions in this country are greatly improved since the first of the year. Small grain looks very fine, yet we cannot figure on this much at this time, for we, as a rule, have quite a lot of stormy weather in the spring, and lose quite a lot of it. We think now we will make a fine crop if nothing happens. Corn is late, but is looking good, considering the late spring and rainy weather. There will be less acreage of cotton by 20 per cent. this year than last, and very little is planted at this time.

J. H. BREWER, Cashier.

### MONEY SITUATION QUITE EASY.

THE CITIZENS' STATE BANK,  
Lawton, Okla.

Conditions in this part of the country are improving all the time. Our prospects for crops were never better at this time of the year. The money situation seems quite easy here, and any man who has the security or financial standing can borrow all he wants at a reasonable rate of interest.

W. F. BARBER, Cashier.

### CONFIDENTIALLY EXPECT TRADE CONDITIONS TO IMPROVE MATERIALLY.

THE COMMERCIAL NATIONAL BANK,  
Muskogee, Okla.

Regarding the general condition which prevails in this section of the State of Oklahoma, I beg to advise that, on account of the general prospects for a bumper wheat and oats crop, potatoes and the general condition of the soil, indicates that all growing crops are doing fine.

The general good feeling that prevails throughout this section of the country that business is on the increase, and that better times are coming, and the general good feeling that prevails throughout the citizenship of this section, indicates to us that we may expect prosperity soon.

The cotton crop will be somewhat curtailed this year, and the increase will be in corn, wheat and oats.

We therefore confidently expect trade conditions to very materially improve in the next succeeding months.

D. N. FINE, President.

### A WONDERFUL PROSPECT OF ABUNDANT CROPS.

THE AMERICAN NATIONAL BANK,  
Muskogee, Okla.

The improvement in the cotton market, of course, has been the great factor in improvements which have been made in the past 60 days, but the thing that is stimulating conditions in our section just now is the wonderful prospect which we have for wheat, as well as oats, hay and fruit.

We have increased our acreage of wheat nearly three times in this locality over what we have ever raised before and doubled our acreage in oats, and there never has been prospects the like of which we have now for both these grains, with an abundance of moisture in the ground, the late rains having destroyed the chinch bugs, indications are that we will have a most wonderful harvest.

The corn has a good stand, but on account of the numerous rains which we have been having, the farmers have been unable to cultivate the land and it is looking bad because of the weeds.

The peach crop is another item which is of great importance, although we have never been able to realize on because of our inability to market same. Eastern Oklahoma, although not a fruit country at all, will have

peaches enough to supply Kansas City, St. Louis and Chicago if they could only be marketed.

WILLARD JOHN, President.

#### HAVE LEARNED NOT TO DEPEND UPON ONE CROP.

FIRST NATIONAL BANK,  
Norman, Okla.

In commenting on an undoubtedly better local situation here, we are compelled to answer—diversified farming. Of course, the immediate benefit of a better price for cotton is at once apparent. This has been of great assistance, but the thing that is enabling the people of this country to meet their contracts and get some small share of prosperity for themselves is the fact that they have learned that it is not well to depend entirely on one staple. One section of country tributary to Norman, Okla., naturally lends itself to diversification; the other does not.

The part of our territory in which cotton is naturally the principal money crop has learned that they must handle a few livestock if they would prosper. They have learned that even if they make a good cotton crop and then have to buy feed for whatever stock they may have, and in addition to that are compelled to buy everything they need from the merchant, that they cannot really accomplish results. At least they cannot accomplish enough to be independent and give their families any advantages.

In closing I would say that I think our people have learned their lesson very well. We still think well of cotton. It is a great crop and a good money crop. But in connection with it we want corn, wheat, oats, kaffir and other feedstuffs; we want fruit and vegetables, and last, but not by any means least, we want plenty of livestock.

WM. SYNNOTT, Cashier.

#### FARMERS IN MUCH BETTER CONDITION THAN A YEAR AGO.

BANK OF COMMERCE,  
Perry, Okla.

While we are located in the South, yet we are upon the border of the cotton district, and the conditions of the cotton market did not affect us materially. Most of our cotton customers held their cotton until the price advanced to 8 and 9 cents, and consequently fared pretty well on that staple. Our last year's wheat crop was good all over this section of Oklahoma, and the price was the best that we have known in a number of years, and as a result our farmers are in much better condition than they were a year ago. Bank deposits have advanced and business generally has been good. We are now on the eve of another great wheat and oats harvest, and if nothing happens during the next 30 days we should harvest a still larger crop than we did last year.

JOHN A. HANSEN, President.

#### EVERYBODY SEEMS OPTIMISTIC.

THE AMERICAN NATIONAL BANK,  
Sapulpa, Okla.

This particular section of Oklahoma never has had so bright a prospect regarding crop conditions at this season of the year in the 10 years just passed as it has at the present time. The pipe line companies are running 10 per cent. more oil, and the prospects for the price being higher are exceptionally good. The general conditions existing among the people of this community are excellent, and everyone seems optimistic for the future. General business conditions are far in excess of what they were a year ago, and we look forward to additional increase at an early date.

W. E. BROWN, Cashier.

#### SOUTH CAROLINA.

##### EXPECTING ONE OF THE GREATEST PERIODS OF PROSPERITY.

THE BANK OF COLUMBIA, S. C.,  
Columbia, S. C.

From our standpoint we notice a very marked improvement in general financial conditions in this section during the past two or three months. While some of this improvement has been due no doubt to the advance in the price of cotton, we ascribe most of it to the quiet but persistent efforts made by each individual during the past six or eight months to retire, as far as possible, his outstanding obligations and to place on a sound footing his general financial condition.

We confidently expect during the coming winter one

of the greatest periods of prosperity that this section of the country has ever experienced.

L. L. HARDIN, Cashier.

#### GREATEST CASH BALANCE IN THIRTY YEARS

BANK OF WALHALLA,  
Walhalla, S. C.

In spite of losses to our farmers and others in the early season, many of them now are able to meet their obligations in full and have money to purchase for the coming season without calling on the banks to help for as much as usual. It is evidenced by the greatest cash balance this bank has ever had, and we have been in business for over 30 years. The most of this cash balance has been taken in within the last 60 days.

W. L. VERNER, Cashier.

#### TENNESSEE.

##### SEE NOTHING BUT PROSPERITY AHEAD.

FIRST NATIONAL BANK,  
Copperhill, Tenn.

We take pleasure in advising you that our business at the present time is better than for a year past, and all other lines are reaching normal. Mining operations are normal, with prospects for still further improvement. Building operations are coming around nicely, and farm prospects are good.

We have endeavored to keep in touch with business throughout this mountain section, and are free to state that we can see nothing but prosperity ahead of us. We, however, believe it to be the duty of the bankers of the country to keep close check on their loans and cut out speculative lines for the time being at least.

M. C. KING, President.

#### THE NEED FOR EVERY ONE TO TRY TO HELP THE OTHER.

HARPEATH NATIONAL BANK,  
Franklin, Tenn.

We find conditions gradually improving here, though we do not expect a good business this year; in fact, our local indications do not appear so favorable as they did some months back.

The dry weather is hurting our crops, though our county, having very widely diversified crops, we will get by even though two or three crops may be hurt.

Business is "lazy," and it looks like it is going to have a "tired feeling" for some time.

From the standpoint of this bank, our deposits are the best we have ever had, and we have no "bills payable."

We need to get away from pessimism and all try and help each other, instead of every fellow trying to absorb the other, with excess interest charges, etc.

NEWT. CANNON, JR., Cashier.

#### TRADE CONDITIONS SHOULD BE ACTIVE BY FALL.

CITY NATIONAL BANK,  
Knoxville, Tenn.

From our observation and information which reaches us from various sources, there is a steady and gradual trend of trade back toward normal. You understand, of course, that the demoralized condition of the cotton market last fall, due directly to the European war, seriously retarded the South's commercial progress, but this condition is rapidly changing, and, with the present cotton market and the outlook of the South's varied interests, the general feeling is much more hopeful and our trade conditions by fall should be active.

R. E. MOONEY, Cashier.

#### LOOKS FOR REAL IMPROVEMENT ONLY AFTER THE WAR.

THE NATIONAL CITY BANK,  
Memphis, Tenn.

Conditions are improving slowly. We don't look for real improvement until after the war is ended, and this appears to us to be a long way off.

WM. H. KYLE, Vice-President.

#### BANK CLEARINGS AS A BAROMETER.

THE AMERICAN NATIONAL BANK,  
Nashville, Tenn.

Conditions in this section have very materially improved in the last few months.

Bank clearings are a very satisfactory barometer of conditions. While there was a small falling off in clear-

ings in July, August and September of 1914 in comparison with 1913 in October, November, December and January there was a very material decrease, this decrease showing larger each month through January. In February, however, there was a great improvement shown, and for March and April the clearings were almost normal again. Business the first few days of this month has been very active, so far as our individual bank is concerned, and bids fair to compare favorably with a year ago.

The increase during the last few months in the price of cotton has helped the banks south of us materially, but the banks north of us still have their problems for the handling of tobacco advantageously.

We have just finished a convention of Tennessee bankers, which was one of the largest attended in many years, and the bankers from the western or agricultural part of the State advised the writer that everyone in that section who was at all able to work was as busy as possible planting a crop. This argues well for the recuperation of that section, as West Tennessee has suffered from some poor crops in the last few years, and during the past year from the low price of cotton.

Nashville business men are endeavoring to replace pessimism that has prevailed with optimism for the future, and as usual Nashville will send out next week a special train with 200 boosters through a portion of our trade territory in Northern Tennessee, Middle and Western Kentucky and Southern Indiana.

This is a movement inaugurated by Nashville many years ago which has been adopted by many other cities since that time. This year the boosters will have a train of about seven or eight coaches, three of which will be first-class Pullmans, one a Pullman observation and the others baggage cars, and a diner, and will carry with them a motion-picture outfit to take pictures of the boosters and their operations in each town and city visited.

This will later be released to all the photo-play houses in Nashville's territory, and after that as a news item to the world at large. The writer believes this to be one of the best pieces of publicity for Nashville that has ever been worked out, and this just shows the spirit of our people here relative to our confidence in the future.

There is a movement on now through this section to build "the Dixie highway," which is an automobile route between the North and South, for which three routes are being considered. One of these routes, which, by the way, is the shortest and most feasible, comes by Nashville, and if this route is selected it will mean much for the future development of this territory.

Nashville has recently been made a Reserve City, which is a fit recognition of her position in the financial world on account of the strength and the large clearing facilities of her banks, and will doubtless attract a large amount of additional deposits for use locally which have heretofore been deposited with Northern and Western Reserve cities.

We are great believers in the South and its future, and feel confident that there is a large participation in store for our section through the trade relations which will naturally come to the United States from the prestige she will occupy in the future among the nations.

CHAS. H. WETTERAU, Assistant Cashier.

#### TEXAS.

##### LIVING WITHIN INCOME TO AN EXTENT NEVER BEFORE KNOWN.

THE FARMERS' STATE BANK,  
Georgetown, Tex.

Since the first shock due to the outbreak of the European war there has been a readjustment in business and a gradual but steady improvement in business conditions. This improvement began before the beginning of the new year in this section, but began to be noticeably apparent even to the most casual observers early in January. It has continued to grow until there is now a wave of optimism taking the place of the depression of six months ago.

Crop conditions in this section are good, though the season is rather late, and the reduction in cotton acreage not as large as it would have been but for the unfavorable corn-planting season. However, there will be a reduction in Williamson county, one of the largest cotton producers in the State, of 15 to 20 per cent.

The people are living within their income to an extent



never before known in this section, and with even an ordinary crop and ordinary prices conditions here will be better than they have been for years.

E. G. GILLET, President.

## VIRGINIA.

### REVIVAL OF BUSINESS ALONG REASONABLE LINES.

LYNCHBURG NATIONAL BANK,  
Lynchburg, Va.

A distinct improvement in actual business is noted with our jobbers and manufacturers. On top of this, there seems to be a very hopeful outlook for future business. Collections are reported to us as getting on a more satisfactory basis. Every week orders seem to be coming in in greater volume with our jobbers.

Business around this part of Virginia seems to have held its own in a satisfactory way throughout the past winter, and in the cotton States, where our jobbers and manufacturers do a large volume of business, they feel that a revival of business along reasonable lines of improvement is coming in at this time, and altogether our people note that better conditions are prevailing.

ALLEN CUCULLU, Cashier.

### COTTON, A CASE OF INDIGESTION RATHER THAN STARVATION.

THE NORFOLK NATIONAL BANK,  
Norfolk, Va.

In regard to conditions in the South, beg to say we regard them as essentially sound.

The South was the only section of the country last year which raised a bumper crop (cotton), which apparently, for a time at least, it was unable to market satisfactorily, but the situation differed essentially from a crop failure, it being a case of indigestion rather than of starvation. Without underestimating the seriousness of the situation, there was a great deal of unjustifiably pessimistic talk about the situation in the South, particularly in Congress and among the politicians, which caused considerable demoralization. While the conditions were strenuous for a time, the situation was saved by the actual use of emergency circulation, and was helped materially from a sentimental standpoint by the prospective inauguration of the new Federal Bank system.

The Southern banks, with the liberal assistance of their Northern correspondents and the co-operation of their customers, addressed themselves earnestly to the practical solution of the difficulties before them. The quantity of the cotton crop marketed, and the prices at which this was done, have been exceedingly gratifying, although a considerable portion of the crop is still being carried and a large volume of suspended credits are being carried over to next season. The volume of deposits, particularly with the country banks, are below normal, and this is enforcing a curtailment of credits, which will compel the farmers to raise this year's crop more economically than any raised for several years, and will enforce a reasonable curtail in the cotton acreage. This, with a diversion to other crops, will still further help conditions, and with fair crops we look forward to good business and a return next season to normal prosperity.

The railroads of the South have naturally suffered under the existing conditions, but these, with a return to normal, will share in the return to prosperity which we feel awaits our entire section.

CALDWELL HARDY, President.

### GENERAL RELIEF IN MONEY SITUATION HAS CREATED A BETTER FEELING.

AMERICAN NATIONAL BANK,  
Richmond, Va.

Actual improvement throughout this territory has been very slow.

Our merchants and business men are all considerably extended financially, and there can be no relief until another crop is raised and sold at fair prices and until there is some activity in general trading, especially in the lines of timber lands and manufactured lumber.

Our customers report better collections in the last few weeks, and the general relief in the money situation has created a better feeling. The establishment of the Federal Reserve Bank has been an important factor. The business of this section has had very little of the stimulation of war orders. Several of our large manufacturing plants, however, are preparing to start on busi-

ness of this character, and this will materially assist local retail trade.

The weather has been very dry. We had only one slight rain during the month of April. It is not too late, however, for crops to be saved by good rains in May. We are looking ahead with feelings of hopefulness and belief that we are assured of good business late in the year.

OLIVER J. SANDS, President.

### RICHMOND JOBBERS FEELING BETTER.

THE FIRST NATIONAL BANK,  
Richmond, Va.

It seems to us that conditions throughout the territory served by this bank, principally Virginia, West Virginia, North and South Carolina, are steadily improving. We understand that the crops will be made this year at a minimum cost, and that a fair return for same this fall will strengthen the financial condition of our territory very considerably.

The resumption of work at the American Locomotive Co., Richmond branch, will undoubtedly have a stimulating effect on the retail business of Richmond. Our jobbers are feeling better, as the indications are for better purchasing power by the Southern merchants. Undoubtedly the situation looks brighter, but we are advising our customers throughout the South to move cautiously, believing that the great waste produced by

the European war will necessitate a readjustment of the world's finances in the near future.

JOHN M. MILLER, JR., Vice-President.

### WITH A GOOD SEASON THINGS MIGHT TURN FOR THE BETTER.

THE AUGUSTA NATIONAL BANK,  
Staunton, Va.

We are sorry that we cannot report any change for the better, that is, at least, in this section of the Valley. While most of our farmers have gotten very good prices for their wheat, they have been compelled to buy grain and hay heavily, owing to the shortage last year, and our merchants report business poor and collections very bad.

With a good season from now on things might take a turn for the better.

F. P. McFARLAND, Cashier.

## WEST VIRGINIA.

### PRACTICALLY ALL LABOR NOW EMPLOYED.

THE FIRST NATIONAL BANK,  
Fairmont, W. Va.

There has been a decided improvement in the last 10 days in this section. Business has been very quiet during the winter, but at this time practically all labor is employed.

JOHN O. MORGAN, Cashier.

# When Basic Industries Fully Revive

## IMPROVEMENT IN TRADE CONDITIONS LOOKED FOR BY MACHINERY AND SUPPLY DEALERS.

"For the first time in many months it is possible to send out an optimistic report" is the gist of a letter from a supply and machinery dealer of New Orleans in response to an inquiry of the MANUFACTURERS RECORD. The export trade in lumber and in phosphate rock has been quite seriously affected by the war abroad, and naturally the industries upon which such exports are based are still feeling the effects, and in the case of lumber the effects of the depression prevailing before the war began. The lumber trade, especially, is a fair barometer of the business of dealers in supplies and machinery. Consequently until lumber activities are again in full swing, supply and machinery dealers do not look for normal business. But among the following letters from such dealers in different parts of the South coal mining activities, the purchase of equipment by railroads, a good season for cottonseed-oil mills and the prospect of good grain crops and other crops are noted as promising steady improvement in conditions, and especially toward the close of the year.

## ARKANSAS.

### BETTER FEELING AMONG BUSINESS PEOPLE.

ARKANSAS MILL SUPPLY CO.,  
Pine Bluff, Ark.

While there is just a little improvement in business conditions, due perhaps to the price of cotton being better than it has been for some time, there is still very little business among the lumber mills. It seems that the price of this commodity has not advanced, and, while a good many of the large sawmills are running, they are accepting business at a low figure, and we do not anticipate very much improvement in conditions for some time. But on a whole there is some improvement, and at least a better feeling among the business people throughout this section.

GEO. P. DABBY, Manager.

## FLORIDA.

### LITTLE IMPROVEMENT EXPECTED BEFORE PHOSPHATE CAN BE SHIPPED TO EUROPE.

THE CAMERON & BARKLEY COMPANY,  
Tampa, Fla.

In reference to business conditions in South Florida at the present time, and also the outlook, will say that we find in most lines there is a considerable shortage. We believe that the wholesale grocery business has kept up well, and, in fact, has not been affected by the general depression which seems to prevail all over the country.

In the supply and hardware business and other lines

there is still considerable shortage, and, in fact, very little improvement can be noted in the past three or four months. In the supply business especially we are experiencing a shortage on account of closing of the phosphate plants, and we cannot expect any improvement until it is possible to ship this product to Europe. While there is demand in Europe at the present time for phosphate rock, ocean rates are so high that it is not possible to handle it at a satisfactory price; furthermore, it is difficult to obtain the ships.

While the orange crop this year has been about the same as last or normal, on account of low prices the returns have been greatly reduced. The general feeling seems to prevail, however, that there will be an improvement in conditions the latter part of the year. Of course, we are unable to get any facts on which this can be based.

Unless there is a general improvement all over the country, we hardly see how Florida could expect to see any better times ahead.

J. G. BARKLEY, Second Vice-President.

## GEORGIA.

### COTTON MOVING READILY PUTS MONEY INTO CIRCULATION.

ALBANY MILL SUPPLY CO., INC.,  
Albany, Ga.

For the past 30 days we have felt very much encouraged, and believe that the worst is over. We see no reason why business conditions should not steadily improve during the balance of the year. At the price the farmers are getting now for cotton, it is moving readily and naturally; this gets some money in circulation and opens up business conditions in all lines.

We believe that the crops in our section have been diversified so that we will not have an overproduction of cotton next fall. The farmers are raising more food-stuffs, and this will have a tendency to bring about better conditions.

We firmly believe that business will continue to improve now every month, and we are expecting better things in every line of business as the fall approaches.

J. C. FULFORD, Manager.

### MUCH BETTER OUTLOOK APPARENT.

BATTEY MACHINERY CO.,  
Rome, Ga.

In regard to business conditions in this part of the country, will say that we believe that they are gradually improving. There seems to be a much better outlook than two months since, and we believe that business is on the upgrade.

J. CUMMING, Secy.-Treas.

## LOUISIANA.

## OPTIMISTIC REPORT POSSIBLE FOR THE FIRST TIME IN MANY MONTHS.

WOODWARD, WIGHT & CO.,  
New Orleans, La.

For the first time in many months it is possible for us to send you an optimistic report.

There can be no doubt that during the past month conditions in this territory have improved very materially. The price of cotton is better. The acreage of cotton for next year has been much reduced, and the lumber business is getting better slowly.

The only unfavorable factor at present is the drought in the sugar regions, and if there is rain shortly this will not have any serious effect.

None of this improvement is due to war orders, but seems to be a genuine improvement in general conditions. Whether this improvement will continue during the coming months we have no way of knowing, but there can be no doubt that for the last 30 or 40 days conditions have been gradually mending.

W. S. JONES.

## NORTH CAROLINA.

## FINDS A MUCH MORE HOPEFUL TONE.

MECKLENBURG IRON WORKS,  
Charlotte, N. C.

There is no question that business conditions are decidedly improving in this section, and while in our own business as yet there has been but small change in amount of order, we feel very much encouraged as to the improvements in the next two or three months.

There is a decided increase in gold mining throughout our section, and we are having strong inquiries for engines, and some for sawmills and other material. In conversation with other business men we find a much more hopeful tone and accounts of improving business.

MECKLENBURG IRON WORKS.

## BUSINESS CONDITIONS BRIGHTER.

MOFFATT MACHINERY MANUFACTURING CO.,  
Charlotte, N. C.

We are pleased to advise that business conditions are now greatly brighter, and have every indication of becoming better. We have some good orders booked, and recently received the contract for the warehouse of Mercantile Development Co. of this city, which has 22 separate stores. The following are some of our recent installations and elevators in the shops being constructed: Newport News General Hospital, Newport News, Va.; Southern Power Co., Durham, N. C.; S. H. Kress & Co., Central Hotel, Latta Arcade, all of Charlotte; Lexington Hardware Co., Lexington, N. C.; Government Postoffice, Savannah, Ga.; Virginia Railway & Power Co., Norfolk, Va.; Cleveland Chair Co., Cleveland, Tenn.; Canton Cotton Mills, Canton, Ga.; Dewey Bros., Goldsboro, N. C., besides a number of small equipments. We are pleased to state that a good proportion of this business has been gotten by following up the data given in the Daily Bulletin, and it occupies a very prominent space on the desk of the writer.

BAYARD H. STORM, Engineer.

## HOW AGRICULTURAL DIVERSIFICATION HAS BEEN BENEFICIAL.

ODELL HARDWARE CO.,  
Greensboro, N. C.

This particular section has not suffered so much depression, by reason of the fact that it is not confined to one single crop. Of course, all crops are grown in this section—cotton, tobacco, wheat, corn, poultry and everything that goes to make a prosperous country—and as a consequence we have not felt the depression immediately in this section. Our depression has been largely by reason of the trading which we do outside of our individual locality, where it has been in the cotton section. I am glad to state, however, that there seems to be a brighter side to affairs now than formerly, the outlook being much brighter than in the past. Cotton is improving in price; lumber is beginning to move a little, and we will have a revival in business of every kind. I do not think it will be as flush as some predict, but a good solid business, which we think is better than a boom. Crops are looking fine. We have recently sold \$100,000 worth of bonds for street improvements in this city, and we see no reason why business should not be good for the balance of the year.

North Carolina particularly affords a fine field of en-

deavor for those who want to make investments. Our greatest need is a larger population. The opportunities are here in great abundance. It simply needs the people to utilize them and to make good returns.

CHAS. H. IRELAND, President.

## GRADUAL IMPROVEMENT IN PAST TWO WEEKS.

NEW BERN IRON WORKS & SUPPLY CO.,  
New Bern, N. C.

We have been enjoying a gradual improvement for the past six weeks. We feel that this improvement will continue, and while we do not feel that there will be any boom for many months, still we are quite certain that there will be no such depression as there has been for the past eight months.

ERNEST F. WINES, President.

## BUSY ON A GOVERNMENT CONTRACT.

RALEIGH IRON WORKS CO.,  
Raleigh, N. C.

With reference to general conditions in this vicinity, beg to advise that we are not in position to tell you anything definite, but there is nothing particularly active in our line of work except the large Government contract on which we are engaged at present, and which will probably keep us going the balance of the year.

WM. T. HARDING, President.

## BELIEVE ALL BUSINESS WILL BE ON A SAFE BASIS.

HARRIS HARDWARE CO.,  
Washington, N. C.

There has been a marked improvement in the business conditions in Eastern North Carolina since March 15; in fact, we know of several jobbing firms with whom we are closely connected whose sales during April, 1915, have exceeded their sales of April, 1914, and we do not know of any better indication than this.

We believe all business will be done on much safer basis, and that the lesson learned by our business men and farmers in this section will be well worth the high price which it has cost them.

CHAS. A. FLYNN, Treasurer.

## HOW THE LOW PRICE OF LUMBER HAS HAD WIDE EFFECT.

STANDARD SUPPLY CO.,  
Wilmington, N. C.

The trouble with the South, that is, the eastern half of North and South Carolina, is not, as the majority of the people North thought, due to the price of cotton, though, of course, this has something to do with it, but the main trouble is the price of lumber.

The eastern half of North and South Carolina is filled with sawmills, from the small ground-mill up to the very large mills. Due to the price of lumber being so low, and which is less than they can manufacture it for, they have been compelled to cut down on their expenses, that is, cut the salaries of the laboring class pretty near 50 per cent., and the large mills which run double bands have shut down one side, thereby throwing about one-half of the labor out of employment. Besides, the material that was wanted they would rob from the side that was shut down rather than by new, so as to make their losses at the end of the year as little as possible. Taking into consideration the number of men that are employed by the sawmills in the South, throw half of these out of employment, cut the other half's salary 50 per cent., and we think that it would explain why the country merchants' sales are considerably smaller, and why they cannot collect in what is due them. Therefore, they are compelled to ask assistance from the dealers and jobbers, who are obliged to give it to them, thereby cramping them. But if they force collection from them, then the small merchant in the country is compelled to go into the hands of the receiver, which makes it such the dealers and jobbers cannot force these collections, but they are compelled to try and cut their expenses to try and meet the conditions. Conditions will not be better until the laboring class is employed, and at a salary which they can afford to live on and at least have the necessities of life and be able to pay for them, and this will not happen in this section until the price of lumber advances where the mill man can make a legitimate profit.

F. S. BURR.

## SOUTH CAROLINA.

## CONDITIONS REPORTED BETTER.

COLUMBIA SUPPLY CO.,  
Columbia, S. C.

We do not see very much improvement in general conditions, but there must be, since we hear from all sides that conditions are somewhat better.

C. ATKINSON.

## TENNESSEE.

## LOOKING FOR CONTINUED IMPROVEMENT.

SUMMERS-PARROTT HARDWARE CO.,  
Johnson City, Tenn.

While the first half of 1914 was an unusually good business period with us, we have slightly increased our business for the same period of 1915, beginning with January 1.

We have noted with particular interest a more active recent development in the lumber business, which line perhaps influences the business situation of this section more than any other product. We are looking forward to continued business improvement.

We wish to express our appreciation of your active interest in the development of Southern industries.

J. A. SUMMERS, President.

## IN THE HARDWOOD SECTION OF THE MISSISSIPPI VALLEY.

THE RIECHMAN-CROSBY COMPANY,  
Memphis, Tenn.

As far as the lumber business is concerned in the territory which we cover, which embraces the State of Arkansas, Mississippi, Northern Louisiana and South-east Missouri, which includes the hardwood and yellow pine manufacturers, business among the mills in the hardwood section is not as satisfactory as it was January 1. Many of the large mills that resumed operations are now closing down. What little lumber is moving is being sold at practically cost. In the yellow pine fields conditions are about the same.

The other industries from which we draw our chief trade are among the cottonseed-oil mills. They have finished a good season, hence they are in pretty good spirits; but conditions have not advanced sufficient to determine how the season will wind up.

J. A. RIECHMAN, President.

## BUSINESS CONDITIONS GETTING BETTER EVERY DAY.

KEITH, SIMMONS & CO.,  
Nashville, Tenn.

There is no question of a doubt but what business conditions in the South have improved and are getting better every day. In the particular section in which we are located business looks better, but it would appear that we are going to suffer through a drought which is destroying our wheat prospects. However, the general crop will be good, and we are feeling more optimistic than we have in a long time.

W. G. SIMMONS.

## TEXAS.

## MONEY IS CONSIDERABLY EASIER.

WACO MACHINERY & SUPPLY CO.,  
Waco, Tex.

We are glad to state that conditions in this locality are much improved, and prospects now are very good for grain and cotton. Money is considerably easier, and if the farmers in this State are successful in raising a good grain crop there is no doubt but what we will have a most prosperous fall, regardless of the price of cotton. The acreage on cotton has been reduced about 15 per cent., and we are now hopeful of obtaining a good price, say 10½ or 11 cents, for cotton when it comes in; in fact, we think the future is bright, and we are looking forward to a good year's business.

J. B. DUNCAN.

## VIRGINIA.

## LOOKING FOR A GREAT FLOOD OF BUSINESS.

CHARLES LEONARD HARDWARE CO.,  
Petersburg, Va.

We are glad to say that we have never had better business than now. Some of this is due to enlargement of manufacturing plants near here, but business is showing improvement all over our territory.



In this city most of the manufactories are running full time, and all over our territory outside of Petersburg mills and factories which were closed down at the beginning of the war are opening up. The improvement is especially marked in the cotton section, which was hit hardest by the European troubles. Orders from that section are coming in more freely, and collections are greatly improved, owing to the better price of cotton now being obtained.

We are much pleased with our future prospects, and feel that the hard times are past, and that we will soon see a great flood of business that has been so long held back by unsettled conditions.

F. M. HOBBS, Vice-Pres. and Gen. Mgr.

#### RAILROADS HAVE STARTED BUYING EQUIPMENT.

EMPIRE MACHINERY & SUPPLY CORP.,  
Norfolk, Va.

We have every reason to believe that business conditions throughout the South are improving.

When we realize that we are less than 1,000,000 bales short on the annual export of cotton, and that Germany and Russia are each 2,000,000 bales short of their requirements, with an acreage of only 12,000,000 bales, we see no reason why cotton should not bring 15 to 20 cents per pound within the next eight months. This, of course, will help conditions throughout the South.

We also note that the railroads have recently started buying equipment, which we think is a good indication of business.

Taking all these things together, we feel very optimistic about the future.

J. ROSS McNEAL.

#### WEST VIRGINIA.

##### ONLY A QUESTION OF TIME FOR THE COUNTRY TO COME INTO ITS OWN.

SUPERIOR SUPPLY CO.,  
Bluefield, W. Va.

You are asking a very hard question when you put it up to anyone to diagnose the present business situation.

At the present moment business is better in this territory. The coal people seem more cheerful. The month of April has shown excellent shipments from the mines; prospects for the month of May seem fair to the coal trade, but there is no certainty that it will turn out this way.

Our business depending entirely upon coal mines, will naturally improve if conditions in May continue as they were in April.

As for the general situation, we have no precedent to go by, and we figure that one man's guess is just as good as another's, as it is impossible for us to see how anyone can judge a situation that is so complicated. However, we have not lost faith in this great country of ours, and we are satisfied that it is only a question of time before it will come into its own.

E. H. SMITH, Treasurer.

#### HIGHWAY CONSTRUCTION AS AN IMPETUS.

THE MILLER SUPPLY CO.,  
Huntington, W. Va.

City street and county road building in central and southern West Virginia that has been undertaken during the present year has resulted in our booking a larger volume of business, especially Portland cement, than we have ever before had. Building operations and development of coal properties seem to be quite active, and we are in hopes will result by the end of the year in increasing our business over that of any preceding year.

We might explain, however, that mining operations, on which our trade depends to a very considerable extent, are at this time rather quiet.

M. E. BROWN, General Manager.

#### BUSINESS BETTER THAN SINCE 1913.

PERSINGER HARDWARE & FURNITURE CO.,  
Williamson, W. Va.

Business conditions in this country seem to have an upward tendency. Our business has been better this year than since 1913, and we trust it is all of a permanent nature. The business men of this section of the country with whom I have talked all seem to feel better than they have for several months. The coal business has picked up very materially since April 1.

PERSINGER HARDWARE & FURNITURE CO.

#### LOOKING FOR TREMENDOUS BUSINESS AHEAD

BANKS SUPPLY CO.,  
Huntington, W. Va.

Regarding conditions in this territory, would say the writer is very optimistic as to the future, but regrets to say that business at present is very poor, and collections worse than we have ever known them to be. On the other hand, when the financial situation gets around to that period that legitimate enterprises can procure the necessary money, we believe the developments in West Virginia will simply be wonderful, the Chesapeake

& Ohio Railway double-tracking the balance of its main line and double-tracking several of its branches, and the Baltimore & Ohio Railway building new lines into yet undeveloped fields. Large tracts of coal and lumber lands have been purchased or optioned, all awaiting the loosening up of the pursestrings. When that occurs, Southern West Virginia and Eastern Kentucky will fairly hum. We cannot see otherwise than tremendous business ahead of us, and it is up to the financial interests that control the money situation to say when.

W. H. BANKS, Treasurer.

## Impressed by Tennessee River Potentialities

### THE STREAM'S ADVANTAGE FOR HYDRO-ELECTRIC POWER AND NAVIGATION STUDIED BY CONGRESSIONAL COMMITTEES.

[Special Dispatch to Manufacturers Record.]

Chattanooga, Tenn., May 12.

The actual conditions as they exist at the present on the Tennessee River, together with the many advantages to commerce and industry that will be bound to follow the damming of Muscle Shoals, as outlined in the MANUFACTURERS RECORD of April 29, were observed at first hand by the many members of the United States Congress, United States army engineers and distinguished citizens who made a three-day tour of inspection of the river this week as guests of the Tennessee River Improvement Association. The visitors were first taken to Florence and Sheffield, Ala., where river boats were boarded and a trip made up to the present canal system at Muscle Shoals. This trip was only made possible by a rain of several days before, which raised the water sufficiently for the light-draft river boats to use it. Otherwise it would have had to be made by land, thus forming a striking illustration of the river's inadequacy at present.

At Muscle Shoals an inspection was made of the present lock system, on which over \$4,000,000 have been spent for construction and maintenance, and which is still too small to be of much advantage. At Lock No. 6 a public gathering of over 5000 citizens of the Tennessee River Valley was addressed by various members of the party. The members of the Congress were especially told of the river conditions, and facts were presented them evidencing the great need of providing for the system of dams as approved by the United States army engineers and incorporated in a report to the National House of Representatives.

A very striking talk was given by John A. Patten, president of the Tennessee River Improvement Association, in which he briefly but strongly set forth the underlying reasons for Congress undertaking this work. Mr. Patten said:

"There is no time for me to go into the many details of the technical and statistical information, the definite and authoritative data which our Congressional guests have come so far to learn at first hand, but it is our great good fortune to have with us others well qualified for that most important duty—United States engineers of high rank and ready knowledge; mechanical and electrical engineers from civil life, who have made special study of the great problems and opportunities here presented—and I hope that our Congressional guests will call upon those most capable and trustworthy experts to show the reasons for the faith that is in them and to demonstrate again the proven facts that sustain the report of the board of engineers for rivers and harbors, known to us as H. R. Document No. 20, in which the Chief of Engineers has concurred and which is before the proper committee of Congress. I am deeply thankful that Senators and Congressmen are here to verify for themselves and on the ground the facts and figures and are to confirm by their own judgment and observation the conclusions and recommendations embodied in that report. I ask our guests to bear in mind the actual tonnage already carried on this unfinished, disjointed, hazardous and uncertain transportation line, and will state it in railway equivalent, using average tons of freight to the loaded car and to the train load on safe and completed rail lines serving the same territory. In the years 1911, 1912 and 1913 the traffic on the Tennessee River between Florence

and Paducah was 1,284,000 tons; between Florence and Chattanooga, 812,000; between Chattanooga and Knoxville, 1,279,000 tons; an annual average of 428,000 tons, or 26,750 railway carloads, on the lower river; 270,000 tons, or 16,875 carloads, on the middle river; 426,000 tons, or 26,600 carloads, on the upper river; an average annual freight traffic for the whole river of 70,000 carloads. I think the average amount of freight per railway train in this region is about 350 tons.

"On that basis of comparison the present commerce and industry of the Tennessee River region provides, and the river in the present condition carries, the equivalent of 3200 train loads per year. With reasonable allowance for seasons when it is in places un navigable, the conservative measure of its present service is 15 train loads per day.

"We might safely rest our case for completion of its improvement on that one fact, coupled with the well-known steady and heavy increase in all forms of production within the 44,000 square miles of its drainage area, which Providence designed it to serve, and which nature has endowed with a wealth and variety of resources unsurpassed by any other region within these broad and bounteous United States. To get the present and the full benefit of these resources; to have that full measure of production, power, progress and prosperity of which we are justly deserving for the very reasons that we and our region are capable of it and ready for it and most earnestly ask it, we should show our visitors this week and through them the Federal Congress, which has all power in the premises.

"Speaking of the river more generally, there are at least four important things to consider now. The whole river should be opened so that the whole country may have the benefit of the vast natural resources on its headwaters and tributaries. The three disconnected divisions should be made one continuous carrying line so that the 220 miles of deep channel, unobstructed river below Sheffield and the 32 miles of slack water, with eight feet minimum depth at Chattanooga, may be available and serviceable. Congress should not fear to expend \$16,000,000 at Muscle Shoals, since private investors have spent \$11,000,000 on the much smaller development at Hale's Bar. The proposed power development at these Shoals should and can be upon such lines and by such methods as to bring the maximum agricultural as well as industrial development to this favored region along the middle, so that the whole country may be the gainer by the expenditure."

Six members of the House Committee on Rivers and Harbors and three members of the Senate Committee on Commerce were present and made addresses, and from their remarks it was evident that they were greatly impressed by what they saw and could be counted upon to give the project their earnest consideration. In fact, they held out every hope that the undertaking would receive favorable mention by Congress. A one-day trip was devoted to that section of the Tennessee between Chattanooga and Hale's Bar, at which latter place private capital has built a dam giving a large volume of hydro-electric power and providing a lock and dam for river navigation. This dam, which did not cost the Government any money, gives slack-water navigation for 40 miles. This stood out in striking contrast with the Muscle Shoals section and gave a definite

idea of how the carrying forward of the latter project will solve the navigation problem on this river. On the third day an inspection was made of Caney Creek and the proposed sites of river improvements on the upper Tennessee.

The visitors were splendidly entertained by the leading citizens at the various places visited, and every facility was placed at their disposal to secure all information they wanted on any phase of the undertaking.

Too much emphasis cannot be laid upon the many advantages that will accrue to the Tennessee Valley by the completion of this project. In the first place, it will throw open for river transportation the year round that extensive and richly endowed territory from above Knoxville to Paducah where the Tennessee joins the Ohio River. The low freight rates the river will provide will stimulate a wonderful development, commercially, industrially and agriculturally.

The dams to be built will have an ultimate horsepower of 680,000 of electrical energy, greater than Niagara Falls, and this great volume of power distributed throughout all parts of this region will cause tremendous expansion in the utilization of the vast natural resources of mine and forest, which have but been scratched. It is also probable that great plants will be established to produce cyanamid or lime nitrogen, which is secured through the use of electric energy. In 1913 nitrates to the value of over \$20,000,000 were imported, and some idea of the importance of the Muscle Shoals development can be had from the statement that it will provide electric power sufficient to furnish all the lime nitrogen this whole country needs for fertilizer purposes.

Lying in the very heart of America, in a section that contains vast deposits of coal, iron ore, limestone and other minerals locked up in its mountains for ages, and an abundance of hardwoods and farming lands of great fertility, the valley of the Tennessee River possesses advantages which strongly emphasize the justification of the Congress authorizing the funds for carrying forward the Muscle Shoals development and liberating this vast store of dormant wealth for the growth and expansion of the nation.

WM. H. STONE.

### THE WARRIOR ROUTE OPEN.

#### Completion of Improvements Costing More Than \$10,000,000.

Tuscaloosa is preparing to celebrate this week the formal opening of Lock No. 17 in the Warrior River, marking the culmination of waterways improvement representing an expenditure of \$11,000,000 and insuring all-the-year water transportation between Mobile and the great coal fields in Northern Alabama and the industrial centers of the Birmingham district generally. This work is the result of years of persistence in intelligent agitation based upon knowledge of the commercial opportunities awaiting expansion in the region. At the ceremony on Thursday will be present the two Alabama United States Senators, Governor Henderson and other representative men, all of whom comprehend the importance of the completion of the undertaking. Boats have already gone through the locks, which has two lifts, each of 31½ feet, raising the water more than 60 feet. A tug with its tow of four barges went through the lock in 47 minutes on May 3, going through the first lift in 25 minutes and through the second lift in 20 minutes, and taking two minutes to pass from one lift to the other.

#### Southern Building in April.

The following figures, as compiled from reports from representative cities, present a brief summary of Southern and Southwestern building operations during April. In Richmond, Va., a total of 89 permits was issued for new construction estimated to cost \$339,467, and 87 permits for alterations and repairs to cost \$30,647. As compared with April, 1914, these figures show a decrease of \$177,700 in the cost of new construction and \$9317 in the cost of alterations and repairs. The value of operations from January 1, including alterations and repairs, is estimated at \$1,073,974, a decrease of \$187,017 as compared with the corresponding period last year. A total of 62 permits was issued in Norfolk during the month, representing a cost of construction of

\$152,623, as compared with \$312,630 for April, 1914. Permits were issued in Greensboro, N. C., to the number of 27, representing a cost of construction of \$66,800. As compared with April, 1914, these figures show an increase of \$48,935. The value of operations in Winston-Salem is estimated at \$51,872, a decrease of \$43,920 as compared with April, 1914. During the first four months of this year permits have been issued for construction to cost \$242,675, an increase of \$12,154 as compared with the corresponding period last year. A total of 13 permits was issued in Durham during April, representing a cost of construction of \$17,320, and for the first four months of the year 49 permits were issued, representing a cost of construction of \$77,020. The cost of construction for which permits were issued in Raleigh during the month is estimated at \$12,425. Permits were issued in Atlanta for construction estimated to cost \$445,587, a decrease of \$119,413 as compared with April, 1914. During the first four months of this year permits were issued for construction to cost \$1,458,761. In Macon a total of 65 permits was issued during April for construction estimated to cost \$35,919. The cost of construction for which permits were issued in Birmingham, Ala., was estimated at \$169,701, covering a total of 339 permits. As compared with April, 1914, these figures show a decrease of \$148,443. In Tampa, Fla., a total of 139 permits was issued during the month, including alterations and repairs, which represent a cost of construction of \$106,665. The value of operations in Miami is estimated at \$64,200, a decrease of \$20,250 as compared with April, 1914. Permits were issued in Knoxville, Tenn., for construction to cost \$56,725, a decrease of \$225 as compared with April, 1914. In Memphis the cost of construction for which permits were issued exceeded that of April, 1914, by about \$18,000. A total of 255 permits was issued in Louisville, Ky., representing a cost of construction of \$282,400. As compared with April, 1914, these figures show a decrease of 78 in the number of permits and \$165,470 in the cost of construction. Permits were issued in Shreveport, La., to the number of 108, representing a cost of construction of \$63,817. These figures exceeded March totals by 22 in the number of permits and \$16,336 in the cost of construction. A total of 38 permits was issued in Lake Charles, La., representing a cost of construction of \$23,040. In El Paso, Tex., permits were issued to the number of 131, representing a cost of construction of \$233,536, an increase of about \$20,000 as compared with March. A total of 351 permits was issued in Galveston, including alterations and repairs, which represent a cost of construction of \$228,224. Of this total the cost of new construction is estimated at \$139,020. In Houston permits were issued to the number of 332, including alterations and repairs, which represent a cost of construction of \$199,636, while a total of 58 permits was issued in Fort Worth, representing a cost of construction of \$81,495. A total of 80 permits was issued in Little Rock, Ark., representing a cost of construction of \$99,245. The cost of construction for which permits were issued in Tulsa, Okla., is estimated at \$153,265, covering a total of 76 permits. Permits were issued in Wheeling, W. Va., to the number of 114 during the month, representing a cost of construction of \$50,402. The total cost of all construction for which permits were issued in the District of Columbia during the month is estimated at \$1,929,020. Distributed by sections the building figures are as follows: County, \$790,152; northwest, \$62,975; northeast, \$28,475; southeast, \$28,350; southwest, none. Repairs, county, \$27,055; northwest, \$56,122; northeast, \$4046; southeast, \$5006; southwest, \$6837. In Baltimore the cost of new improvements for which permits were issued is estimated at \$755,522; additions, \$59,800, and alterations, \$54,000, making a total of \$849,322.

#### Bank Merger at Jacksonville.

The consolidation of the State Bank of Florida with the Atlantic National Bank is announced at Jacksonville, Fla., and the news is accompanied by the statement that the Atlantic National will now have more than \$8,000,000 of deposits (they were already over \$7,000,000) and total resources of nearly \$10,000,000. As a result of the merger E. J. L'Engle and W. C. Croon were elected directors of the Atlantic National Bank, the latter also becoming a vice-president. D. D. Upchurch, cashier of the Atlantic National, was also

elected a vice-president, and D. K. Catherwood, an assistant cashier, was elected cashier. Edward W. Lane is president, the vice-presidents, other than those mentioned, being Fred W. Hoyt and Thomas P. Denham. The statements of condition published by the respective banks May 1 were as follows: Atlantic National—loans and discounts, \$5,136,368; deposits, \$7,128,052; capital stock paid in, \$350,000; surplus, \$650,000; undivided profits, \$247,260. State Bank of Florida—loans and discounts, \$689,000; deposits, \$964,283; capital stock, \$72,200; surplus, \$60,000; undivided profits, \$13,939.

#### Bank Statements.

The National Exchange Bank of Baltimore reports at the close of business May 1: Total resources \$8,927,829, which includes loans and discounts, \$5,084,263; United States bonds, \$1,221,500; cash and due from reserve agents, \$1,308,044. Deposits were \$5,159,689; capital stock, \$1,500,000; surplus, \$850,000; undivided profits, \$173,232. Waldo Newcomer is president; Summerfield Baldwin, vice-president, and R. Vinton Lansdale, cashier.

The First National Bank of Richmond, Va., reports at the close of business May 1 total resources of \$19,000,518, which includes loans and discounts, \$12,870,467; United States bonds, \$1,885,500; cash and due from banks, \$3,495,614. Deposits amounted to \$12,807,814; capital, \$2,000,000; surplus, \$1,000,000; undivided profits, \$212,234. John B. Purcell is president; John M. Miller, Jr., vice-president, and W. M. Addison, cashier.

The National City Bank of Mobile, Ala. (formerly the City Bank & Trust Co.), reports as of May 1 resources of \$5,086,046, which includes loans and discounts, \$2,826,545; stocks and bonds, \$1,260,406; cash and exchange, \$949,093. Deposits are \$3,490,895; capital, \$750,000; surplus and undivided profits, \$375,151. E. J. Buck is president; Pat. J. Lyons, vice-president; A. C. Tonsmeire, cashier.

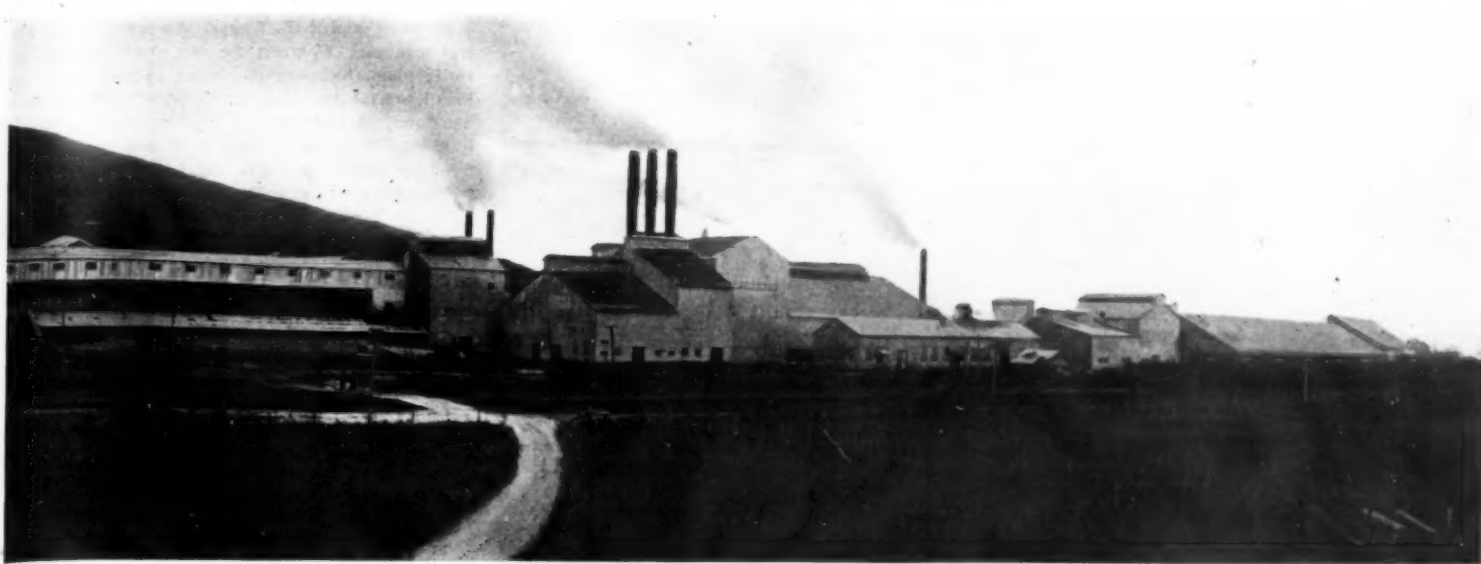
#### North Carolina Electrical Power Co.

About \$150,000 will be the cost of an auxiliary steam-driven electric plant which the North Carolina Electrical Power Co., Asheville, N. C., will build on French Broad River, at mouth of Beaver Dam Creek, four miles from Asheville. This plant will have a capacity of 8000 horse-power, electrical generating equipment for 4000 horse-power to be installed this year. Construction will be under company's supervision, with Samuel A. Johnson as superintendent and D. M. Williams as resident engineer; plans by Chas. E. Waddell, consulting engineer, Asheville. The building will be of brick, steel and concrete construction, 120 feet long by 75 feet wide and 30 feet high. The machinery will include steam turbine and electric generators from Westinghouse Electric & Manufacturing Co. of Pittsburgh, boilers from Walsh & Weidner Company of Chattanooga, coal conveyors, automatic stokers, etc. The North Carolina Electrical Power Co. has three hydro-electric plants, as follows: At mouth of Beaver Dam Creek, on French Broad River, four miles from Asheville; on Ivy River, 17 miles north of Asheville; on French Broad River, two miles from Marshall, N. C.; these three water-power developments furnish 10,000 electrical horse-power.

#### Santa Fe Gets Into Oil Fields.

The Oil Fields & Santa Fe Railway Co., recently chartered in Oklahoma in the interest of the Santa Fe Railway system, has purchased the Oil Belt Terminal Railroad and the Cushing Traction Co.'s line from Frank Brown of Independence, Kans., and R. D. Long of Muskogee, Okla., who were president and vice-president, respectively. The price paid is said to have been \$400,000. The purchasers will complete and connect the two roads, which have 27 miles of roadway, on which 18 miles of track have been laid. J. R. Cottingham, counsel for the Santa Fe, is quoted saying that construction will be pushed, and it is hoped to have the lines finished by July 1. The Oil Fields & Santa Fe Railway was incorporated to build about 15 miles of line from Cushing northeast to the oil fields. The lines acquired will connect Cushing, Drumright, Oilton and Jennings, Okla.





CEMENT PLANT OF THE CLINCHFIELD PORTLAND CEMENT CORPORATION AT KINGSPORT, TENN.

## Where Optimism and Enterprise Hold Sway

INDUSTRIAL, MINERAL AND AGRICULTURAL DEVELOPMENTS ALONG THE CAROLINA, CLINCHFIELD AND OHIO RAILWAY, RECENT, UNDER WAY AND CONTEMPLATED.

[Special Correspondence Manufacturers Record.]

Johnson City, Tenn., May 7.

Where optimism and enterprise abound, and especially if these characteristics in a people are backed by vast undeveloped mineral, timber, soil and other natural resources, together with a superb climate and wonderful scenic beauty to contribute toward the comfort and pleasure of mankind, success in a material sense seems assured. Everyone, from the capitalist and business man down to the smaller farmer and workingman, of that part of Southwestern Virginia, East Tennessee and Western North Carolina lying along and adjacent to the Carolina, Clinchfield & Ohio Railway, running from Spartanburg, S. C., through Johnson City, Tenn., to Dante, Va., is imbued with an abiding faith in the possibilities of that region.

The cheerful spirit prevailing cannot truthfully be called a mere psychological condition, either. Business is good and is steadily getting better. New enterprises and industries are being promoted in addition to those contemplated and already under way. The evidences of these developments are far-reaching. They extend from the coal-producing regions of West Virginia and Kentucky into the South Atlantic States. J. J. Campion of Johnson City, vice-president and traffic manager of the "Clinchfield," said this week that the freight traffic of his line for the month of March was better than for many months past, that the amount for April was even greater than the March business, and that the prospects for May show that a still greater volume of freight will be carried. The character of the freight,

too, indicates that better times are here, a large portion of it being composed of what might be called luxuries that have been purchased by the farmers of the Carolinas and other cotton States.

The "Clinchfield's" 35-mile extension, now under construction from Dante, Va., the present northern terminus of the line, to Elkhorn City, Ky., for connection with the Chesapeake & Ohio, will be ready for operation about July 1. Opening up of this connecting link will better freight facilities by reason of a direct line between the central West and the South Atlantic States being obtained; and consequently a greater volume of traffic will be secured by the road. Stations are being established and buildings for this purpose are now being erected at several points. Development of this section is predicted for the near future, as the territory traversed contains valuable commercial timber, building stone, coal and other minerals of various kinds.

Twenty-seven miles above Johnson City, where the Carolina, Clinchfield & Ohio connects with the main line of the Southern Railway, running from New York to New Orleans, is located the new community of Kingsport, which is about three miles north of the old village of that name that was established way back in colonial times. The first village of Kingsport is on the old highway across the mountains that Andrew Jackson and other statesmen of his day traveled when going from Tennessee to Washington, D. C. One wonders what would be the thoughts of these men if, today, they could see the changes that have been brought about by the great industrial and commercial developments made

possible by the opening up of what was then a mountain wilderness by the "Clinchfield" railroad.

Here are located the Kingsport Farms, comprising about 7000 acres, that belong to the Carolina, Clinchfield & Ohio Railway; the Kingsport Brick Corporation, with a capacity of 100,000 bricks per day, and the immense cement plant of the Clinchfield Portland Cement Corporation. The present daily capacity of the cement plant, which covers an area of three and one-half acres, is 2500 barrels. As the supply of shale and limestone, which is said to be exceptionally pure, is practically inexhaustible, the output of the works is limited only by the facilities for handling and producing the finished product. On the day of the writer's visit to the plant 35 cars of "Clinchfield" cement were shipped out by the concern. Enlargements to the plant are now under way that will double its present capacity. To take care of the cost of expansion, the corporation's capital stock was increased from \$1,500,000 to \$2,000,000. This amount covers the construction of the new buildings, additional machinery necessary, for which contract has been let, and increased power-plant facilities, including a new concrete stack 200 feet high. The officials hope to have the plant ready for operation by the spring of 1916. The plant is thoroughly modern in every respect. It is electrically driven throughout, and is said to maintain the finest and most efficient power plant in the country.

The management reports the demand for the cement has increased over 50 per cent. since the same period last year, and that with new customers added daily the outlook for business is very promising. Although storage facilities for handling 30,000 tons of rock were added during the past year, for several months past the cement mills have been working up to the daily capacity of the quarries. With the completion of the Carolina, Clinchfield & Ohio's extension in July the company hopes to increase its sales greatly, as lower freight rates to a large territory, embracing Southern Ohio, Kentucky and West Virginia, can be secured. In order to handle this new business a sales office has been



JOHNSON CITY LUMBER &amp; MANUFACTURING CO.'S PLANT UNDER CONSTRUCTION AT JOHNSON CITY, TENN.



FELDSPAR CRUSHING PLANT OF THE CLINCHFIELD PRODUCTS CO. AT ERWIN, TENN., IN ACTIVE OPERATION.

opened at 1305 Union Trust Building, Cincinnati, O. Some time ago a sales office was established at 908 Commercial Bank Building, Charlotte, N. C., which was necessitated by the increased demand for the cement in the Carolinas. By securing competitive freight rates the company's products also have a large sale in Florida and Louisiana.

An inexhaustible supply of shale furnishes the raw material for the Kingsport Brick Corporation. This plant is running continuously and shipping 100,000 brick in flat as well as round and smooth faces. All of red rough tex brick and other shades of rough tex brick in flat, as well as round and smooth faces. All the building brick used in the structures mentioned in this article was supplied by the Kingsport Brick Corporation. Some of the larger contracts in the South using Kingsport brick include all the buildings of the Queen's College, Charlotte; Cape Fear Hotel, Wilmington, N. C.; Jefferson Hotel, Columbia, S. C., and others of older construction.

A new industry being established by the brick company is the manufacture of tile. For this purpose several brick buildings are being erected adjoining the plant, of which the main structure will be 84x252 feet and three stories high. A two-story machine shop 75 feet square, a one-story engine and boiler room 30x60 feet and a clay storage-house 75x50 feet compose the balance of the buildings. Ten or twelve kilns will also be added. The American Clay Machinery Co., Bucyrus, O., will furnish the clay-working machinery.

Among the new buildings erected at Kingsport in the past month are a two-story brick bank and office building, costing \$25,000; a two-story brick hotel and store building; one two-story brick drug-store building; two churches, and a one and two-story brick building for the recently-organized Citizens' Supply Co., which will handle a general line of merchandise and building material.

By the co-operation of three companies—the Kingsport Brick Corporation, the Kingsport Farms and the Clinchfield Portland Cement Corporation—with the county authorities a large school building was erected, competent teachers were employed for giving instruction from the primary grades through a high-school course, and the school term was lengthened from five months, the usual county school term, to eight months, the companies paying the expenses for the additional three months. The town people as well as pupils from the surrounding country receive the benefit of the educational advantages offered by the school.

Six years ago the Bank of Kingsport was organized and chartered for business with an authorized capital stock of \$20,000. The bank is now in its own quarters, and at the present time has a paid-in capital stock of \$11,000 and a surplus and undivided profits of \$19,000, an increase of \$10,000 since December, 1912. Several new accounts have been received and the officers are very optimistic as to its growth.

D. & W. Roller, who own several thousand acres in this locality, are subdividing a 200-acre farm tract into small lots of from 4 to 20 acres.

Edward G. Sleeman of Bangor, Pa., an expert slate man, is now working on a large slate deposit near Kingsport. He reports the drilling operations so far carried out as of a favorable nature. The opening of a slate industry in this section will add materially to the growth of Kingsport.

Sullivan county, in which Kingsport is located, has spent in the past year in the neighborhood of \$500,000 on road-improvement work, building bridges, etc., and a bond issue of \$100,000 is to be brought before the voters in the fall.

To give some idea of the increase in land values for this section, Mr. William Roller, one of the three road commissioners of the county, said that land just outside the present limits of Kingsport that sold 11 years ago, before the coming of the railroad, for \$9 an acre now cannot be bought for \$400 an acre, and that other lands, by reason of the construction of good roads, have increased in value from \$40 to \$150 and \$200 an acre. This increase has aided greatly in educating the farmer in the value of good roads, as heretofore most of the farmers of this locality had been inclined to fight road improvements.

Between \$400,000 and \$500,000 have been expended on building operations in Johnson City during the past seven or eight months. Taking into consideration the fact that the population of the town is only about 10,000, such an amount denotes a healthy development. Included in this sum is the erection of the Science Hill



A \$20,000 BRIDGE OVER HOLSTON RIVER NEAR KINGSFORT, TENN.

High School at a cost of \$75,000; additions to the East Tennessee State Normal School, amounting to approximately \$10,000; a large department store building; a \$30,000 Presbyterian church; an ice and cold-storage plant with a capacity of 30 tons of ice a day and cold-storage facilities for accommodating 12 to 15 cars, and a number of smaller business houses and dwellings.

A woodworking plant is now being constructed at Johnson City, and nearby, on a site comprising about



TYPE OF CONCRETE HOUSE BUILT FOR THE OFFICIALS OF THE CLINCHFIELD PORTLAND CEMENT CORPORATION AT KINGSFORT, TENN.

one and one-half acres that was secured from the Carolina, Clinchfield & Ohio Railway, will be constructed gas works having a yearly capacity of 75,000,000 cubic feet of gas. The gas company has been organized under the name of the Washington County Gas Co., with a capital stock of \$100,000 and an authorized bond issue of \$100,000. B. G. Appleby of Saginaw, Mich.,



DIFFICULT MOUNTAIN ROAD WORK IN SULLIVAN COUNTY, TENNESSEE.

is president, and R. B. Wagner vice-president and general manager. Contract for the construction of the entire plant, including the laying of mains, etc., has been let to the American Gas Construction Co. of Newton, Iowa. A high-pressure distribution system will be installed. With this system it is claimed the gas will be free from moisture and give a uniform pressure to every house. Material and equipment have been ordered and are ready for erection and installation. The company expects to have the plant running by August 1 of this year. Laying of 18 miles of mains will begin immediately in Johnson City, and later the company contemplates extending its field of operations to Jonesboro and Elizabethton. For the first year the gas will be made from coke, oil and steam, producing what is known as water-gas, and the second year the plant will be doubled and a coal-gas addition made, after which the gas is to be made only from gas coal. An unlimited supply of this fuel can be secured from the coal mines located along the "Clinchfield" in Southwestern Virginia, and, after completion of the Elkhorn-Dante extension, those of Eastern Kentucky.

The Johnson City Lumber & Manufacturing Co., which was organized and chartered with a capital stock of \$25,000 by T. B. Wallace of Greenville, president, and W. O. Nelson, vice-president and general manager, purchased a tract of land along the Carolina, Clinchfield & Ohio tracks, just inside the corporate limits of Johnson City, and has commenced building operations. Three separate buildings will compose the plant. The largest of the three will occupy about 30,000 square feet of floor space. Modern machinery is to be installed to manufacture the best grade of wood products, including vehicle rims, poles, textile-mill loom supplies and special bent-wood work.

The Heise Manufacturing Co.'s hardwood works at this point for the manufacture of rims, spokes, etc., have been increased. The new buildings and equipment installed required the addition of about 20 hands to its force.

Thomas P. Boone, secretary-manager of the Chamber of Commerce and also the Retail Merchants' Association of Johnson City, states that the associations are working jointly on a \$350,000 cotton-mill proposition and two knitting mills which will be located at or near the city. He also said that plans are now under way for the promotion of a city market costing in the neighborhood of \$30,000, a new municipal building that will probably cost \$75,000, and that the Chamber of Commerce is interested in the promotion of an interurban line from Bostic, N. C., to Johnson City; also one from Jonesboro through Johnson City to Elizabethton. The Chamber of Commerce now has a membership of 300, and the Retail Merchants' Association is composed of about 40 active members. Large and comfortable club-rooms have been provided in connection with the association's offices on Main street, in which committee meetings and social gatherings can be held.

Fourteen miles of pavements and 20 miles of sewers and water mains have been laid since the first of last year, and Washington county, in which Johnson City is located, is to vote on a \$425,000 good-roads bond issue December 18, 1915.

At Erwin, Tenn., which is about midway between Spartanburg and Elkhorn City, which is to be the northern end of the line, is located the division headquarters and shops of the "Clinchfield." In seven years the population of this thriving little town has increased from 300 to 3000.

About 75 dwellings have been erected during the past year; a new brick courthouse costing \$17,000 and a two-story brick office building belonging to the railroad were finished in April, and two large two-story brick buildings are now under construction at a total cost of \$28,000. They will be utilized for store and hotel purposes. Unaka Academy buildings, costing \$17,000, and a \$5000 dormitory used in connection with the school were built by the Holston Baptist Association in 1914. During the same period the Methodists have erected a brick church building costing about \$20,000.

Cement sidewalks have been laid, and the town authorities report that a successful campaign for street paving is under way, and, no doubt, a bond issue to provide for this improvement will be favorably voted on this spring. Unicoi county, of which Erwin is the county-seat, is said to be working for a good-roads bond issue, which will probably be put before the voters this fall.

A water-power site, consisting of 500 acres on the Nolichucky River, about one mile below Erwin, has





CAROLINA, CLINCHFIELD &amp; OHIO RAILWAY OFFICE BUILDING, ERWIN, TENN.



SCIENCE HILL HIGH-SCHOOL BUILDING, JOHNSON CITY, TENN.

been purchased by Heath & Co. of Charlotte, N. C., for proposed hydro-electric development purposes.

W. J. Toney and others have purchased an option on a piece of property on Buffalo Mountain, about a quarter of a mile opposite the town. It is said this property contains a large zinc deposit that compares favorably in quality with the ore produced in the Embreeville zinc region.

Half a mile south of Erwin the Clinchfield Products Co. has erected a feldspar grinding plant. An unlimited supply of raw material is obtained from the company's mines about 30 miles farther down the "Clinchfield" line at Kona, N. C. The plant is running day and night, producing an output of about 80 tons of powdered feldspar in 24 hours. Capital stock of the company has recently been increased to \$750,000, and it is said that the company is contemplating adding a chemical plant for the extraction of beryl salts from pyrites. The feldspar plant is operated on the gravity principle, the raw material being elevated to the top buildings and fed by gravity to the crushers, screens, dryers, etc. The machinery is electrically driven from power obtained from the nearby railroad shops of the "Clinchfield."

Another industry in this section which will commence work about June 1 is the Entermont China Clay Co., postoffice Toecane, N. C. This company is developing a large china-clay deposit at Entermont, N. C., about 33 miles below Erwin. The \$25,000 capital stock of the company will be expended largely in erecting the plant. The mill will be placed near the "Clinchfield" railroad, and a flume line three miles long is being built to the clay deposit high upon the mountain side. As the deposit has practically no overburden, the clay can

be easily handled. Twelve to fifteen tons will be the daily output of the plant at present. It will be increased to 25 tons later. Clay-working machinery for pressing and drying, having a capacity of 40 tons a day, is to be installed by the Patterson Foundry & Machine Co. of East Liverpool, O. The clay obtained from this deposit, which comprises an 11-acre tract, is said to produce pottery of the highest grade.

Unaka Springs, N. C., long noted as a summer resort of the Western North Carolina mountains, is to have a new hotel, which will be built by C. T. Bickley. Preparation for its erection has begun, and Mr. Bickley hopes to have it ready for occupancy by next spring.

Four years ago W. E. Dibbell, a mining engineer of Baltimore, came to Penland, N. C., and started the first commercial development of feldspar in this section, the first shipment being made by him in the spring of 1911. He later organized and incorporated the Carolina Mineral Co., of which he is president, and C. G. Chevalier of Baltimore is treasurer, for the purpose of mining feldspar, mica, uranium, etc. Leases were secured on 3000 acres lying on both sides of the Toe River and the Carolina, Clinchfield & Ohio Railway, which parallels that stream at Penland, and the company began mining and quarrying feldspar, mica and other minerals found in pockets along with the feldspar. Over 1000 tons of

feldspar a month is produced at the present time. A peculiar characteristic of feldspar deposit in this section is that they have to be mined rather than quarried, as invariably, after an opening is started, the vein dips under an accompanying slate-rock formation, which is usually found to an angle of about 30 to 40 degrees. The company has worked deposits 100 feet deep and is now mining at a depth of 70 feet. Average dimensions of the veins are about 12 feet wide, from 8 to 18 feet high, and in some places have a length of 100 feet or more.

Lately the manufacture of mica products, including stove mica, punched mica washers used for electrical purposes and in the graphophone industry, has been taken up by the company. Certain mica specialties formerly bought in Germany are now being marketed by the Carolina Mineral Co., and Mr. Dibbell states that as North Carolina mica is considered of the highest grade known, he sees no reason why this country should go outside for such products.

The Harris Clay Co. has long operated a kaolin plant at Penland. The company now owns clay privileges for 7000 acres, of which deposits aggregating two and one-half acres are being worked, producing about 15 tons of pottery clay a day.

In order to demonstrate the fruit-growing possibilities of this mountain section, the Carolina, Clinchfield & Ohio Railway about six years ago planted 21,000 fruit trees at Altapass, N. C., which is 2629 feet above sea level, the highest elevation at which the road crosses the North Carolina mountains. This experiment has proven so successful that the company has recently added 3000 more apple trees. Varieties under cultiva-



KAOLIN PITS AND PLANT OF THE HARRIS CLAY CO., PENLAND, N. C., FOR THE MANIPULATION OF THE NEARBY PRODUCTS.



INSIDE A FELDSPAR AND MICA MINE OF THE CAROLINA MINERAL CO., PENLAND, N. C., AFTER A HEAVY BLAST.



SHOWING ENTRANCE TO A FELDSPAR AND MICA MINE OF THE CAROLINA MINERAL CO., PENLAND, N. C.

tion include Stayman's Winesap, York Imperial, Stark's Delicious, King David, Rome Beauty and Black Ben. Many thousands of acres are said to be available and suitable for fruit-growing purposes in this region.

A lime-plant proposition is being developed by J. W. Grimes at Linville Falls, N. C., about 16 miles below Altapass. It is reported a plant with a probable capacity of 100 tons a day will be erected.

The Beaman Lumber Co. will immediately rebuild its lumber plant recently destroyed by fire at Marion, N. C.

A cotton mill at Marion has recently been put in operation by the Clinchfield Manufacturing Co., of which D. D. Little of Spartanburg, S. C., is president.

The activities here mentioned are the fulfillment in part of predictions made over three-quarters of a century ago by such men of vision as Robert Y. Hayne of South Carolina and his associates, who labored for the establishment of a railroad across the Appalachian Mountains to unite the South Atlantic States and the Central West. The construction of the Carolina, Clinchfield & Ohio Railway has brought a realization of their dreams.

Nature's vast storehouses of wealth are now being tapped, fertile valleys are yielding large and varied crops; but this is merely the pioneering work that will produce a development the extent of which no one can possibly foresee. Work done in the past year only gives a hint as to what can be accomplished by men of energy in this land of abundant resources, of beautiful scenery, climate, soil, minerals, timber and undeveloped water-powers.

HOWARD L. CLARK.

#### FOR MATERIAL ADVANCEMENT.

#### An Enterprising Railway and Industrial Development Under Way at Richmond, Va.

[Special Correspondence Manufacturers Record.]

Richmond, Va., May 3.

In the 10-year period between 1903 and 1913 the number of manufacturing establishments in this city increased from 1366 to 1979, or 45 per cent., which strikingly emphasizes Richmond's advantages as a diversified industrial community. Its enterprising business men, with a knowledge of its advantages for industrial expansion, by co-operative efforts through an energetic Chamber of Commerce and progressive public service corporations, have kept this city in advance and well prepared for continued growth in factory development.

An illustration of the expansion of its industrial activities in Richmond and to territory beyond its corporate limits, is in the enterprise of the Rappahannock Land & Development Corporation, formed to open up a well-located section. This feature will be greatly helped by the Richmond & Rappahannock Railway Co., which is building a steam and electric railroad extending from Richmond to tidewater on the Rappahannock River, a distance of 75 miles. This development has thrown open for further industrial expansion a section that embodies every manufacturing advantage, and the company is offering free sites along the line of this railroad, both in and adjacent to Richmond, as well as the territory through which the railway passes.

So far nearly \$1,000,000 has been spent on this undertaking. Twenty-seven and a half miles of the steam and electric railroad systems have been built, extending through several small but thrifty communities, and an important truck farming section. Railroad shops have been constructed about two miles from Richmond, and these have been well equipped with the usual machinery for repairing and rebuilding cars and equipment. Passenger service is being handled by gas-electric cars and freight by regulation railroad freight cars and steam locomotives, physical connections having been made at Richmond with the Chesapeake & Ohio and the Southern railways for the interchange facilities of carload freight to all parts of the country.

In addition to providing industries locating along the line with free sites, the Richmond & Rappahannock River Railway Co. will build without charge such side-tracks as will be needed for switching freight cars direct to their doors.

The Pamunkey Valley, to the south of Richmond, through which the road will run, is a splendid farming, trucking and dairying section, and the building of this road has given the farmers the long-needed facilities for

getting their products to market. The truck farming activities in this section will be greatly stimulated by the construction of this line, and this also adds to the advantages of industries locating here, because it will contribute to the comfort and economic living conditions of employees.

There is an abundant supply of labor immediately adjacent to this section, and this is further added to by its proximity to Richmond and the quick service maintained. In addition, there will be an abundant supply of cheap electric power to be had for taking care of any power requirement that will develop.

The work already accomplished by this company has opened up a territory that is now ready for the location of industries, and every co-operation and assistance will be extended to any plants locating on the line. What has been done, however, is but a beginning, and it is the intention to push this work steadily forward to its final completion, which will give to Richmond an opening for further industrial expansion and will materially further its growth.

Nothing emphasizes so strongly the faith of a community in itself as the investment of large sums in such broad developments as these, and it has been this continued and steadfast belief in Richmond by its business men that has helped so much to make this city one of the most active and progressive in the South.

I. S. FIELD

#### Building Activity in North Carolina.

F. M. Cartland, president and general manager Chesapeake Roofing & Pipe Covering Co., Baltimore, Md., writes to the MANUFACTURERS RECORD:

"We have been very much interested in reports appearing in the MANUFACTURERS RECORD recently regarding the revival of business in the South, and are glad to say that our own experience coincides with these reports.

"I returned this week from a trip through North Carolina, where I was gratified to find building operations decidedly more active than for many months past.

In the eastern part of the State a number of tobacco warehouses are being erected to take care of increased acreage.

"The architects throughout the State are busier than they have been since the war started, and the feeling of optimism, which has been expressed since the first of the year, now seems to be developing into actual business."

#### For a Seawall on Mississippi Sound.

[Special Correspondence Manufacturers Record.]

Pascagoula, Miss., May 5.

The Board of Supervisors of Jackson county has established "seawall district No. 1," pursuant to the act of the Mississippi Legislature for 1914, to provide for the creation of districts for the erection of a seawall for the prevention of caving banks, overflows and other like dangers. F. H. Lewis, R. A. Farnsworth, L. E. Cox, J. R. Watts and McVea Young, each one of whom is the owner of property along the line of the proposed seawall, were appointed commissioners of the seawall district.

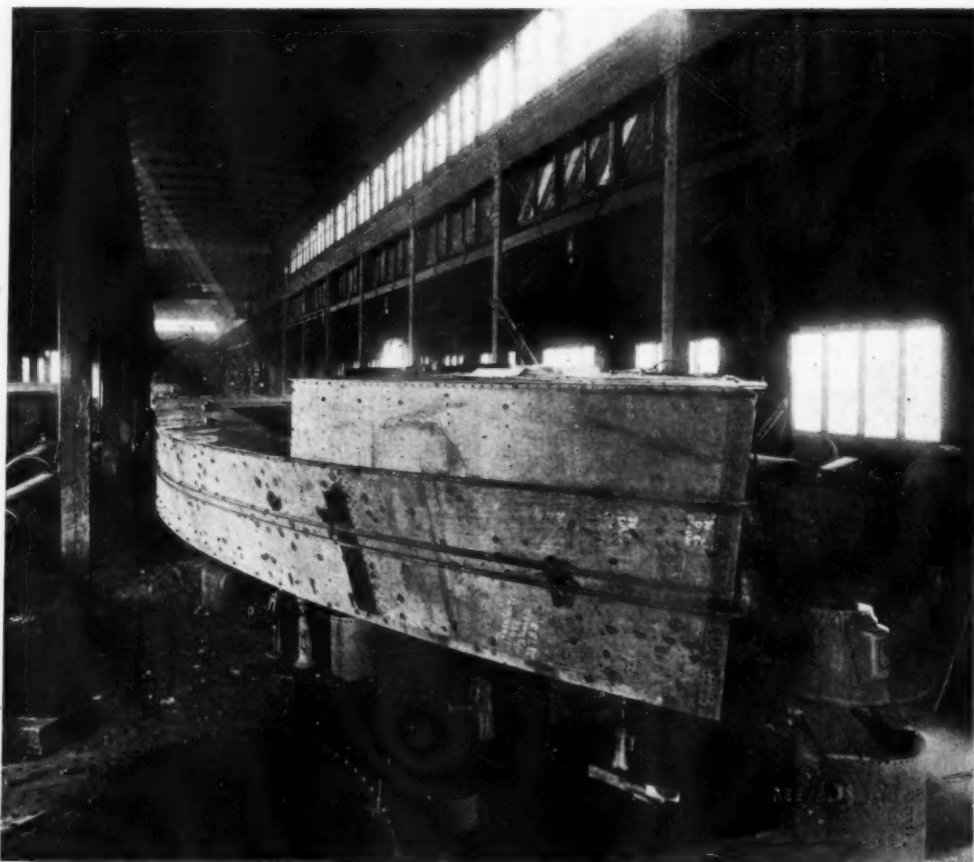
The proposed seawall will extend from a point near the mouth of the East Pascagoula River along the shores of the Mississippi Sound eastward approximately 5000 feet. It is to be paid for by a special tax levied upon the property in the district, or the commissioners, with consent of the Board of Supervisors, may issue bonds. As soon as the commission is organized an engineer will be employed to make the necessary surveys and estimates on the proposed wall.

The city of Pascagoula has ordered a special election to be held on May 28 for authority to issue the \$17,000 of municipal bonds, as outlined in the MANUFACTURERS RECORD April 29.

CHAS. E. CHIDSEY.

Asa G. Candler of Atlanta has been elected a director of the Nashville, Chattanooga & St. Louis Railway.

#### SETTING UP A STEEL BARGE INDOORS.



The first of the steel barges for the Macon-Atlantic Navigation Co., to ply on the Ocmulgee and Altamaha rivers between Macon and Brunswick, was built at the plant of the J. S. Schofield's Sons Company at Macon. It will carry 250 tons of freight on four feet of water, with an additional foot of water required for each eight tons of freight added. The accompanying illustration is especially interesting in showing the barge, which is 120 feet long and 24 feet wide, as it was being fitted up in the plant where it was made preparatory to being launched at Macon.



**AMERICAN IRON AND STEEL INSTITUTE.****Program for the Eighth General Meeting, to Be Held May 28.**

The papers to be read at the eighth general meeting of the American Iron and Steel Institute at Waldorf-Astoria, New York, May 28, are:

Address by the president, Elbert H. Gary.

"Waste Heat Boilers," by Charles J. Bacon, steam engineer, Illinois Steel Co., South Chicago, Ill.

"The Commercial Production of Sound and Homogeneous Steel," by Edward F. Kenney, metallurgical engineer, Cambria Steel Co., Johnstown, Pa.

"Blast Furnace Advancement," by Andrew E. McCoun, superintendent, Edgar Thomson blast furnaces, Carnegie Steel Co., Braddock, Pa.

"Merchant Rolling Mill," by Jerome R. George, chief engineer, Morgan Construction Co., Worcester, Mass.

"Recent Progress in Corrosion Resistance," by Daniel M. Buck, metallurgical engineer, American Sheet and Tin Plate Co., Pittsburgh, Pa.

At the banquet in the evening the principal paper will be on welfare work of the Tennessee Coal, Iron & Railway Co. It will be noted that there are fewer formal papers than usual, and that no formal discussion has been provided for on the program. It is hoped and expected, however, that there will be considerable informal discussion. A hearty invitation to participate in this discussion has been extended to members.

**More Good News in Iron.**

The Matthew Addy Company of Cincinnati, in its market report for May 8, said:

"More good news in the iron market. May promises to be a genuine harvest instead of a spring month. Its first week has seen a continuance of the buying movement. The market is really active, and begins to resemble the good old days of 1902. The resemblance to date is only in the amount of pig-iron that is being bought and sold, and not in the manner in which prices soared upward in those good old days. But quotations are higher. Southern iron has advanced 50 cents a ton, and new business has thoroughly established the advance. Northern iron is much firmer, and all told, the market is much improved. Yet it is to be remembered that while the volume of sales is fine, prices are still too low to be profitable.

"It is estimated that upwards of 250,000 tons of Southern iron have been sold in the immediate past. One Birmingham furnace company alone reports sales of 80,000 tons in April. One of the notable transactions was the purchase by a large British iron brokerage firm of 25,000 tons. Here in the Middle West individual orders have been as a rule on a more modest scale, but there have been two sales of steel-making iron that surpassed the purchase of the Englishmen.

"The buying movement has not spent its force, for the market is still full of inquiries and sales are being made at a most satisfactory rate.

"In the past month specifications for shipment of foundry coke have actually doubled. This means only one thing, and that is that twice as much iron is being melted as before. Coke is not kept in stock to any considerable extent. It is too bulky, and most consumers have a strong prejudice for having it freshly made. Hence it is only ordered forward as it is wanted. Therefore, when coke requisitions go up, more iron is being melted; when they go down, iron melt is declining. It is a certain barometer of the use of iron. Iron shipments, too, have tremendously increased, and the urgency of consumers for quick shipments tells its own story.

"Birmingham No. 2 is now \$10; Ohio No. 2 is \$12.50 and \$12.75, with \$13 expected shortly. The events of the week have been all on the right side."

**Expecting Gradual Return to Normal.**

L. T. Nichols, general manager of the Carolina & Northwestern Railway Co., Chester, S. C., writing to the MANUFACTURERS RECORD, says:

"It is very gratifying to note the business tone as expressed through your valuable paper, and I can add it is reflected in our business at present, but the present

increase with us is largely due to the movement of cotton by reason of the present good price and good weather, enabling the farmers to take fertilizer, both of which movements have been very badly delayed. The situation in our territory is rather peculiar. I have never seen the time when people seem to be more hopeful or anticipate the future with brighter prospects, but the waiting continues and the situation is delicate and many serious problems are before us. And I have only summed the situation up that we may expect gradual return to normal condition, with no very rapid strides."

**INTERSTATE COTTONSEED CRUSHERS.****Features of the Birmingham Meeting of Their Association.**

The annual convention of the Interstate Cottonseed Crushers' Association, to be held in Birmingham, Ala., May 17-19, bids fair to be one of the largest and most interesting in the history of the Association. The addresses of welcome will be made by Governor Henderson for the State, Commissioner Weatherly for the city and Mr. Crawford Johnson for the Birmingham Chamber of Commerce. The response for the Association will be by Vice-President J. J. Culbertson.

Dr. Chas. Baskerville, professor of chemistry of the College of New York, will speak on "The Refining of Oils," with demonstrations. Oscar Wells, president of the First National Bank of Birmingham, and formerly governor of the Dallas (Tex.) Federal Reserve Bank, will make an address upon "The Federal Reserve System." Henry Staples of Richmond, Va., will speak of the importance of "Publicity." George Holderness of Tarboro, N. C., a successful banker and farmer, will speak of the "Relations of the Cottonseed Crusher to the Farmer," and H. T. Poe, Jr., marketing specialist, cottonseed and its products, Department of Agriculture, Washington, D. C., is expected to speak. The officers of the Association are C. L. Ives of Newbern, N. C., president; J. J. Culbertson of Paris, Tex., vice-president, and Robert Gibson of Dallas, Tex., secretary.

**Plans for Reorganization.**

Plans are being formulated to reorganize Aiken Manufacturing Co., Bath, S. C.; Seminole Manufacturing Co., Clearwater, S. C.; and Langley Manufacturing Co., Langley, S. C.; Chas. H. Low, secretary of each corporation, Bath, S. C.; Wm. McKinley, Jr., vice-president of W. H. Langley & Co., New York, and E. A. Pendleton, cashier of National Exchange Bank, Augusta, Ga., comprise the creditors' committee. The total capitalization of the old companies exceeds \$2,000,000. The mill at Bath has 27,328 ring spindles, 558 broad looms, 230 narrow looms, etc.; plant at Clearwater has 19,968 ring spindles, 513 broad looms, etc.; Langley mill has 45,000 ring spindles, 1300 broad looms, etc. It is expected the directors of the new companies will include Wm. C. Langley, Wm. McKinley, Jr., Walter H. Bennett, vice-president of American Exchange National Bank; Wm. H. Seibert, each of New York; Percy E. May and Geo. R. Lombard, president of the Lombard Iron Works, both of Augusta, Ga.

**Textile Notes.**

Anna Cotton Mills, Kings Mountain, N. C., has increased capital from \$95,000 to \$125,000. This company operates 3952 ring spindles, 2000 twister spindles, etc.

Buck Creek Cotton Mills, Siluria, Ala., has decided upon the electric drive and will install electric motors to use 1000 horse-power from the transmission system of the Alabama Power Co., Birmingham. There are 20,000 spindles, 400 looms, etc., in the Siluria mill.

Avondale Mills, Birmingham, has decided upon the electric drive for its Eva Jane Mills and Central Mills at Sylacauga, Ala. Electric motors will be installed and 3000 electric horse-power will be required, this electricity to be obtained from the transmission system of the Alabama Power Co. of Birmingham. There are 40,000 ring spindles, 1200 looms, etc., in the Eva Jane plant and 25,536 ring spindles, etc., in the Central plant.

**Good Roads and Streets****SOUTHERN HIGHWAY ACTIVITIES.****Details of Week's Progress in Improvements in City and Country.**

Further details of road and street undertakings and bond issues mentioned below are given under the headings Construction Department and New Securities, published elsewhere in this issue.

The MANUFACTURERS RECORD invites from its readers information about road and street work projected or under way, photographs of good roads and discussions of matters pertaining to the betterment of the highways of the South.

**Bonds Voted.**

Chesterfield, S. C.—Chesterfield county, Cheraw township, voted \$40,000 bonds to construct gravel roads.

Chesterfield, S. C.—Chesterfield county, Steer Pen township, voted \$23,000 bonds to construct roads.

Clarksville, Tex.—Clarksville Road District voted \$300,000 bonds and White Rock District voted \$20,000 bonds for road construction; both districts of Red River county.

Commerce, Tex.—City voted \$32,500 bonds to improve streets.

East Lake, P. O. Atlanta, Ga.—City voted \$4000 bonds to improve streets.

Hallettsville, Tex.—Lavaca County Road District No. 1 voted \$50,000 bonds to construct roads.

Houston, Va.—Red Bank Magisterial District of Halifax county voted \$50,000 bonds for road construction.

Homestead, Fla.—Dade county will form special road district and issue \$100,000 bonds for highway improvements.

Jasper, Tenn.—Marion county will issue \$40,000 bonds, of which \$25,000 is to be expended on roads in county and \$15,000 on Dixie Highway.

Jourdanton, Tex.—City voted \$10,000 bonds to improve streets.

Winter Park, Fla.—City voted \$10,000 bonds for street paving.

**Bonds to Be Voted.**

De Land, Fla.—Volusia county votes June 8 on \$400,000 bonds to construct hard-surfaced roads, etc.

Green Cove Springs, Fla.—Clay county votes May 18 on \$450,000 bonds to construct roads.

Lafayette, Ga.—Walker county votes July 7 on \$75,000 bonds to improve roads.

Meridian, Miss.—Lauderdale County Supervisors' District No. 1 will vote on \$50,000 bonds to construct roads.

Sweetwater, Tenn.—City votes June 10 on \$5000 bonds to improve streets.

**Contracts Awarded.**

Atlanta, Ga.—Asa Candler, Jr., let contract to construct concrete road 3000 feet long.

Belton, Tex.—W. T. Montgomery, San Antonio, has \$15,000 contract to construct gravel roads.

Birmingham, Ala.—City awarded contract for street improvements to cost \$4269.

Bryan, Tex.—City awarded \$21,411 paving contract.

Elizabeth City, N. C.—City awarded contract for 32,000 square yards of street paving.

Ennis, Tex.—City awarded \$57,939.91 contract for 26,000 square feet of street paving.

Knoxville, Tenn.—Knox county awarded contract to macadamize Wright's Ferry road; \$1500 appropriated.

Lake Charles, La.—Calcasieu Parish Police Jury awarded contracts to construct earth and gravel roads aggregating 43 miles.

McComb City, Miss.—City awarded contract to construct 3000 square yards of concrete sidewalks.

Nashville, Tenn.—City awarded contracts totaling \$408,913.06 for street paving.

Starkville, Miss.—Oktibbeha county, First District, awarded contract to construct 31 miles of highway; \$130,000 available.

**Contracts to Be Awarded.**

Baltimore, Md.—City receives bids until May 19 for 1550 square yards of street paving.

Clarksville, Tex.—City receives bids until May 31 to construct certain streets; 5112 cubic yards excavation for grading; 13,531 square yards vertical fiber brick

pavement on concrete base, with concrete pavement, curb and gutter.

Eminence, Ky.—Henry county will reconstruct road estimated to cost \$14,000.

Greenville, S. C.—City receives bids until May 14 to construct 70,000 square yards street paving, 20,000 square yards sidewalk paving, 25,000 linear feet granite curbing, 10,000 linear feet combination cement curb and gutter, etc.

Lake City, Fla.—City receives bids until May 31 to pave certain streets; cost about \$20,000.

Lake Charles, La.—Calcasieu parish receives bids until June 1 to grade and gravel about two miles of road.

Palmetto, Fla.—City will expend \$150,000 for brick pavements, curb and gutter.

Petersburg, Va.—City receives bids until May 15 to construct 3000 yards asphaltic concrete roadway paving.

Tavares, Fla.—Lake County District No. 4 asks bids until June 7 to construct roads, including 98,973 linear feet roadway, 25,988 cubic yards excavation, 112,024 square yards modified asphalt pavement, etc.

### 1000 MILES OF IMPROVED ROADS.

#### What the State Commission of Maryland Has Accomplished in Eight Years.

In 1908, when the State Roads Commission of Maryland was created, \$5,000,000 worth of bonds were authorized for the purpose of commencing the building of a network of State roads, connecting Baltimore city with the counties and the county-seats with each other. With the completion of this arterial system of modern State highways, in about 90 days, the State of Maryland will have over 1000 miles of improved roads built and maintained to the present time at a total cost of about \$17,564,464. Of this 1000 miles of hard-surfaced roads, approximately 650 is macadam, 200 concrete and 150 of sand, vitrified brick and other materials.

Beginning with 1910, 46 miles of road were constructed; in 1911, 87; in 1912, 154; in 1913, 203, and in 1914-15 the system is to be completed except as to a few short stretches of secondary feeders. The average cost per mile for the work of construction, including preliminary surveys and plans, bridges, culverts, inspection, superintendence, rights of way and other miscellaneous expenses of every character was \$10,481 in 1910, \$12,296 in 1911, \$10,837 in 1912 and \$8286 in 1913, with a general average of \$9086 for the aggregate of 456 miles finished on the main system up to October, 1914. To accomplish the work of maintenance road machinery and equipment to the amount of \$47,430 was purchased in the years 1908-11, and \$23,917 in 1912-13, making a total of \$71,347. Included in the equipment are 15 steam road rollers, 14 sprinklers, 4 stone-crushing plants, 8 motor cycles for inspection purposes, 5 sweepers, 1 large convertible oiling motor truck, 1 complete concrete mixer, 22 dump wagons and miscellaneous tools. All the machinery is kept in repair, and an inventory of it is recorded in an equipment ledger. As no special fund was provided for the purchase of the machinery, it has been charged against the regular appropriation. Comparatively little additional equipment has been purchased in 1914-15.

The average maintenance cost, including oiling at least once a year, patrol services, etc., is \$463.45 per mile. If the Baltimore-Washington Boulevard of 40 miles and the 35-mile Annapolis Boulevard were excluded, the maintenance per mile would be only \$40.06, as the immense traffic between these points requires a higher average of upkeep per mile.

All the roads are constructed and maintained exclusively by the State, the funds being provided by the sale of 15-year State road bonds, of which the total appropriation up to October, 1914, was \$15,770,000. For maintenance the State appropriates 1 per cent. of the tax rate, which means about \$95,000, and a portion of the automobile tax, bringing the total up to about \$275,000 a year.

No other State has a wider diversification of road conditions than Maryland. From the mountains in the western part of the State to the low and sandy Eastern Shore section, with the region between containing every variety of soil met in road construction work, these highways have been built. As far as possible the roads have been adapted to the physical characteristics and resources of the State. They vary from sand-clay to the highest class of city paving in Baltimore city. Take Baltimore county, for instance. It has a total of 446.1

miles of improved road, of which 384.4 miles are macadam, 2.8 miles are bituminous concrete, 50.3 miles are shell, 2.6 miles are brick and 6 miles of concrete. Baltimore county is said to compare favorably with the best of the good roads counties of the United States, and ranks in road building with such counties of the South as Montgomery, Ala.; Mecklenburg, N. C., and Fulton and Chatham in Georgia.

Many States and counties make the fatal mistake of spending large sums of money in road building and nothing for maintenance. When such conditions exist, not only the road is ruined, but the taxpayer who was perhaps favorable to road improvement work is now loath for his county to again appropriate money for such a purpose. This is what has happened in many counties of the South. For a State or county to realize the ultimate value of an improved road it must keep it in proper repair. This is well illustrated in the maintenance work carried on by Maryland. It is said that macadam roads completed two, three and four years ago in some parts of Maryland are better roads today than at the time they were built. Such a condition has been brought about by applying to the surface of the road, at least once a year, a heavy coating of oil, over which is spread 4.3 tons to 54.9 tons of stone chips a mile. The stone thus applied mingles with the roadbed and becomes a part of it. In treating a road for this purpose it is said that the quantity of oil can be gradually reduced after the first application. Last year the oil used on the roads aggregated 1,393,000 gallons and the stone amounted to about 26,553 tons.

#### For the Pan-American Road Congress.

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## MINING

### DEVELOPING OKLAHOMA ZINC.

#### Activity Under Way on Properties Not Far From Davis.

Chamber of Commerce,

Davis, Okla., May 4.

*Editor Manufacturers Record:*

Dr. J. C. Luster and Mr. J. C. Morris have just finished a very large mill for the separation of ore, and are now getting a big run ready. Their plant has a capacity of 100 tons a day of zinc concentrates, and has already been fully tried out to the entire satisfaction of all concerned. This zinc ore is very finely disseminated in a hard limestone rock, and the problem has been to get a mill that would take out the zinc from the rock, which has been successfully accomplished.

The rock assays from 40 to 64 per cent. zinc, and the Arbuckle Mountains are full of outcroppings covering a place about three miles wide by about 12 miles long, there are places where there is some showing at the surface of lead and copper.

There are to be erected in the near future two more mills that have been contracted for, and one mill has just been unloaded and is now being taken to the site for erection. The Hale-Hill Mining Co. has just closed a deal with Chicago parties to develop its property, and its chief engineer is now here to start operations. The Goosenest people are getting out large quantities of ore and sinking a shaft. Mr. Clark is here representing some Missouri people, and has placed orders for machinery and 50,000 feet of lumber for their mill. These properties all lie just west of Davis, and not over six miles distant, Davis being the nearest railway point, is situated on the Gulf, Colorado & Santa Fe Railroad, in the heart of the famous Washita Valley.

W. M. BAUGHMAN, Secretary.

### Feldspar and Mica of Georgia.

The State geological department of Georgia has just issued a valuable report on the mica deposits of the State, which was prepared by Dr. S. L. Galpin, formerly assistant State geologist, contains 192 pages, a number of attractive half-tone cuts and a large colored map showing the location and distribution of the most promising mica and feldspar deposits of the State.

The first 21 pages are taken up in the discussion of the Crystalline area, or that part of the State wherein the mica and feldspars occur. This is followed by several pages giving a description of the various kinds of feldspars and mica, and also the modes of occurrence, method of mining, grading, testing and marketing of these minerals. In the second part of the report the deposits of mica and feldspar are described by counties, which for convenience are divided into eight sections. Following the description of the individual deposits by counties is a condensed summary of the report, in which the author calls attention to deposits of both feldspar and mica in a number of counties that are of special commercial promise.

To the report is added three appendices; one giving an abstract of the various patents issued by the United States Patent Office on methods for extracting potash from feldspars and other silicates; another on the use of ground feldspar for commercial fertilizers, and a third on the chert of Northwest Georgia as suitable material for pottery manufacture.

The publication of this report at the present time seems quite opportune, as there is now quite a pressing demand for mica, due largely to the shortage of the foreign supply, which has been materially affected by

the European war. Copies of this report can be secured from Prof. S. W. McCallie, State geologist, by payment of the postage, 16 cents.

### The Market for Portland Cement.

Standard Portland Cement Co.,

Birmingham, Ala., May 8.

*Editor Manufacturers Record:*

We take pleasure in advising you that our shipments for April, 1915, were 100 per cent. greater than for April, 1913, and 55 per cent. greater than for April, 1914. For the first four months of this year our shipments are 45 per cent. greater than for any corresponding period during the eight years since we started in business. During 1913 and 1914 a large part of our shipments were made on large contracts; however, during this season most of our tonnage is being furnished on small miscellaneous work, which would indicate that there is considerable construction work going on throughout the South.

There is no question that, since cotton prices have been advancing, the South has shown a remarkable revival in business conditions, and unless further complications take place there is no question, in our opinion, that by fall business will be normal throughout the entire country.

The production of Portland cement in our country is such that all demands can be filled in good shape. The indications are that there will be considerable construction work throughout the South this year in spite of a late start, due to the uncertain financial conditions throughout our country.

J. I. McCANTS, Sales Manager.

### Calcium Carbide and Ferro-Silicon.

An annual output of 10,000 to 20,000 tons of calcium carbide and ferro-silicon is planned by the Shawinigan Electro Products Co., Baltimore, with \$250,000 capital. Details are being considered and construction will soon begin, electric furnaces to be installed. Electricity will be obtained from the Consolidated Gas, Electric Light & Power Co., Baltimore, which receives its electrical energy from the Pennsylvania Water & Power Co.'s hydro-electric development at McCalls Ferry, Pa., on the Susquehanna River, 40 miles from Baltimore, the maximum output being 82,000 kilowatts. The Shawinigan enterprise has been organized by Charles E. F. Clark of Baltimore, president of the Pennsylvania Water & Power Co.; J. E. Aldred of New York, chairman of the directors of that company, and associates.

### Clinchfield Coal for Europe.

Through its new London agency, which is in charge of Mr. Barnett, formerly president of the Chesapeake & Ohio Coal Co., and the Atlantic States Coal & Coke Co., the Clinchfield Fuel Co. of New York, with selling headquarters at Spartanburg, S. C., has secured an order for 100,000 tons of coal to be shipped to ports of Continental Europe. The order is to be filled between now and December, and the first shipment will be made from Norfolk. Upon the completion of the Southern terminals at Charleston, S. C., the balance of the contract will probably go forward from that port.

### Big Lumber Contract.

Announcement was made last week at Hattiesburg, Miss., that the J. F. Wilder Lumber Co. of that place had received a contract from the United States Government for approximately 3,000,000 feet of Mississippi and Louisiana pine for use in the Panama Canal zone. The contract will be filled within 90 days.

### Needs Brick and Concrete Works.

That a brick plant and concrete works are needed in connection with the prospects for industrial progress at De Ridder, La., is stated by G. W. Cline of that city. Correspondence addressed to Mr. Cline will receive attention.

pavement on concrete base, with concrete pavement, curb and gutter.

Eminence, Ky.—Henry county will reconstruct road estimated to cost \$14,000.

Greenville, S. C.—City receives bids until May 14 to construct 70,000 square yards street paving, 20,000 square yards sidewalk paving, 25,000 linear feet granite curbing, 10,000 linear feet combination cement curb and gutter, etc.

Lake City, Fla.—City receives bids until May 31 to pave certain streets; cost about \$20,000.

Lake Charles, La.—Calcasieu parish receives bids until June 1 to grade and gravel about two miles of road.

Palmetto, Fla.—City will expend \$150,000 for brick pavements, curb and gutter.

Petersburg, Va.—City receives bids until May 15 to construct 3000 yards asphaltic concrete roadway paving.

Tavares, Fla.—Lake County District No. 4 asks bids until June 7 to construct roads, including 98,973 linear feet roadway, 25,988 cubic yards excavation, 112,024 square yards modified asphalt pavement, etc.

### 1000 MILES OF IMPROVED ROADS.

#### What the State Commission of Maryland Has Accomplished in Eight Years.

In 1908, when the State Roads Commission of Maryland was created, \$5,000,000 worth of bonds were authorized for the purpose of commencing the building of a network of State roads, connecting Baltimore city with the counties and the county-seats with each other. With the completion of this arterial system of modern State highways, in about 90 days, the State of Maryland will have over 1000 miles of improved roads built and maintained to the present time at a total cost of about \$17,564,464. Of this 1000 miles of hard-surfaced roads, approximately 650 is macadam, 200 concrete and 150 of sand, vitrified brick and other materials.

Beginning with 1910, 46 miles of road were constructed; in 1911, 87; in 1912, 154; in 1913, 203, and in 1914-15 the system is to be completed except as to a few short stretches of secondary feeders. The average cost per mile for the work of construction, including preliminary surveys and plans, bridges, culverts, inspection, superintendence, rights of way and other miscellaneous expenses of every character was \$10,481 in 1910, \$12,296 in 1911, \$10,837 in 1912 and \$8286 in 1913, with a general average of \$9986 for the aggregate of 456 miles finished on the main system up to October, 1914. To accomplish the work of maintenance road machinery and equipment to the amount of \$47,430 was purchased in the years 1908-11, and \$23,917 in 1912-13, making a total of \$71,347. Included in the equipment are 15 steam road rollers, 14 sprinklers, 4 stone-crushing plants, 8 motor cycles for inspection purposes, 5 sweepers, 1 large convertible oiling motor truck, 1 complete concrete mixer, 22 dump wagons and miscellaneous tools. All the machinery is kept in repair, and an inventory of it is recorded in an equipment ledger. As no special fund was provided for the purchase of the machinery, it has been charged against the regular appropriation. Comparatively little additional equipment has been purchased in 1914-15.

The average maintenance cost, including oiling at least once a year, patrol services, etc., is \$463.45 per mile. If the Baltimore-Washington Boulevard of 40 miles and the 35-mile Annapolis Boulevard were excluded, the maintenance per mile would be only \$440.06, as the immense traffic between these points requires a higher average of upkeep per mile.

All the roads are constructed and maintained exclusively by the State, the funds being provided by the sale of 15-year State road bonds, of which the total appropriation up to October, 1914, was \$15,770,000. For maintenance the State appropriates 1 per cent. of the tax rate, which means about \$95,000, and a portion of the automobile tax, bringing the total up to about \$275,000 a year.

No other State has a wider diversification of road conditions than Maryland. From the mountains in the western part of the State to the low and sandy Eastern Shore section, with the region between containing every variety of soil met in road construction work, these highways have been built. As far as possible the roads have been adapted to the physical characteristics and resources of the State. They vary from sand-clay to the highest class of city paving in Baltimore city. Take Baltimore county, for instance. It has a total of 446.1

miles of improved road, of which 384.4 miles are macadam, 2.8 miles are bituminous concrete, 50.3 miles are shell, 2.6 miles are brick and 6 miles of concrete. Baltimore county is said to compare favorably with the best of the good roads counties of the United States, and ranks in road building with such counties of the South as Montgomery, Ala.; Mecklenburg, N. C., and Fulton and Chatham in Georgia.

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Dr. J. C. Luster and Mr. J. C. Morris have just finished a very large mill for the separation of ore, and are now getting a big run ready. Their plant has a capacity of 100 tons a day of zinc concentrates, and has already been fully tried out to the entire satisfaction of all concerned. This zinc ore is very finely disseminated in a hard limestone rock, and the problem has been to get a mill that would take out the zinc from the rock, which has been successfully accomplished.

The rock assays from 40 to 64 per cent. zinc, and the Arbuckle Mountains are full of outcroppings covering a place about three miles wide by about 12 miles long, there are places where there is some showing at the surface of lead and copper.

There are to be erected in the near future two more mills that have been contracted for, and one mill has just been unloaded and is now being taken to the site for erection. The Hale-Hill Mining Co. has just closed a deal with Chicago parties to develop its property, and its chief engineer is now here to start operations. The Goosenest people are getting out large quantities of ore and sinking a shaft. Mr. Clark is here representing some Missouri people, and has placed orders for machinery and 50,000 feet of lumber for their mill. These properties all lie just west of Davis, and not over six miles distant, Davis being the nearest railway point, is situated on the Gulf, Colorado & Santa Fe Railroad, in the heart of the famous Washita Valley.

W. M. BAUGHMAN, Secretary.

### Feldspar and Mica of Georgia.

The State geological department of Georgia has just issued a valuable report on the mica deposits of the State, which was prepared by Dr. S. L. Galpin, formerly assistant State geologist, contains 192 pages, a number of attractive half-tone cuts and a large colored map showing the location and distribution of the most promising mica and feldspar deposits of the State.

The first 21 pages are taken up in the discussion of the Crystalline area, or that part of the State wherein the mica and feldspars occur. This is followed by several pages giving a description of the various kinds of feldspars and mica, and also the modes of occurrence, method of mining, grading, testing and marketing of these minerals. In the second part of the report the deposits of mica and feldspar are described by counties, which for convenience are divided into eight sections. Following the description of the individual deposits by counties is a condensed summary of the report, in which the author calls attention to deposits of both feldspar and mica in a number of counties that are of special commercial promise.

To the report is added three appendices; one giving an abstract of the various patents issued by the United States Patent Office on methods for extracting potash from feldspars and other silicates; another on the use of ground feldspar for commercial fertilizers, and a third on the chert of Northwest Georgia as suitable material for pottery manufacture.

The publication of this report at the present time seems quite opportune, as there is now quite a pressing demand for mica, due largely to the shortage of the foreign supply, which has been materially affected by

the European war. Copies of this report can be secured from Prof. S. W. McCallie, State geologist, by payment of the postage, 16 cents.

### The Market for Portland Cement.

Standard Portland Cement Co.,

Birmingham, Ala., May 8.

Editor Manufacturers Record:

We take pleasure in advising you that our shipments for April, 1915, were 100 per cent. greater than for April, 1913, and 55 per cent. greater than for April, 1914. For the first four months of this year our shipments are 45 per cent. greater than for any corresponding period during the eight years since we started in business. During 1913 and 1914 a large part of our shipments were made on large contracts; however, during this season most of our tonnage is being furnished on small miscellaneous work, which would indicate that there is considerable construction work going on throughout the South.

There is no question that, since cotton prices have been advancing, the South has shown a remarkable revival in business conditions, and unless further complications take place there is no question, in our opinion, that by fall business will be normal throughout the entire country.

The production of Portland cement in our country is such that all demands can be filled in good shape. The indications are that there will be considerable construction work throughout the South this year in spite of a late start, due to the uncertain financial conditions throughout our country.

J. I. McCANTS, Sales Manager.

### Calcium Carbide and Ferro-Silicon.

An annual output of 10,000 to 20,000 tons of calcium carbide and ferro-silicon is planned by the Shawinigan Electro Products Co., Baltimore, with \$250,000 capital. Details are being considered and construction will soon begin, electric furnaces to be installed. Electricity will be obtained from the Consolidated Gas, Electric Light & Power Co., Baltimore, which receives its electrical energy from the Pennsylvania Water & Power Co.'s hydro-electric development at McCall's Ferry, Pa., on the Susquehanna River, 40 miles from Baltimore, the maximum output being 82,000 kilowatts. The Shawinigan enterprise has been organized by Charles E. F. Clark of Baltimore, president of the Pennsylvania Water & Power Co.; J. E. Aldred of New York, chairman of the directors of that company, and associates.

### Clinchfield Coal for Europe.

Through its new London agency, which is in charge of Mr. Barnett, formerly president of the Chesapeake & Ohio Coal Co., and the Atlantic States Coal & Coke Co., the Clinchfield Fuel Co. of New York, with selling headquarters at Spartanburg, S. C., has secured an order for 100,000 tons of coal to be shipped to ports of Continental Europe. The order is to be filled between now and December, and the first shipment will be made from Norfolk. Upon the completion of the Southern terminals at Charleston, S. C., the balance of the contract will probably go forward from that port.

### Big Lumber Contract.

Announcement was made last week at Hattiesburg, Miss., that the J. F. Wilder Lumber Co. of that place had received a contract from the United States Government for approximately 3,000,000 feet of Mississippi and Louisiana pine for use in the Panama Canal zone. The contract will be filled within 90 days.

### Needs Brick and Concrete Works.

That a brick plant and concrete works are needed in connection with the prospects for industrial progress at De Ridder, La., is stated by G. W. Cline of that city. Correspondence addressed to Mr. Cline will receive attention.

# Construction Department

## IN ORDER TO FOLLOW UP

Properly the Construction Department items, please bear in mind the following statements:

### EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

### HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be written on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the postoffice will generally be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur, as our reports are often published before new companies are known and before they have any established office for the receipt of mail.

### WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

### DAILY BULLETIN

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year.

All advertising contracts in the Manufacturers Record for three months or longer include a subscription to the Daily Bulletin for the contract period, as well as a subscription to the Manufacturers Record.

### BRIDGES, CULVERTS, VIADUCTS

Fla., Deland.—Volusia county votes June 8 on \$400,000 bonds to construct concrete bridge and hard-surfaced roads. Address County Comms.

Fla., Miami.—H. J. Freeman, Buena Vista, Fla., will construct concrete arch across Biscayne Drive. (See Miscellaneous Construction.)

Ky., Mayfield.—City let contract C. H. Delano of Mayfield at \$2475 to construct bridges on 6th and 7th Sts.

La., Lake Charles.—Calcasieu Parish Police Jury authorized Highway Dept. to invite bids to construct reinforced concrete arch bridge with double-leaf Strauss trunnion bascule span over Calcasieu River; bids at Highway Dept. until June 1; C. E. House, Clerk Police Jury; F. H. Frankland, Bridge Engr. (See Machinery Wanted.)

Md., Cumberland.—City let contract Vang Construction Co. of Cumberland at \$12,000 to construct bridge across Wills Creek at Market St.; plans by B. H. Davis, Whitehall Bldg., 17 Battery Pl., New York, call for 2-arch construction of reinforced concrete; 22-ft. roadway, with curb, 6-ft. sidewalk on each side, ornamental concrete balustrade with 3 lamps, etc.; Jas. P. Gaffney, City Engr. (Call for bids lately noted.)

N. C., Raleigh.—Southern Ry., B. Herman, Ch. Engr., Maintenance of Way and Structures, Washington, D. C., contemplates constructing bridge across Martin St.; plans not developed.

N. C., Sylva.—City let contract Parker, Parker & Houser, Engrs., Asheville, N. C., to construct 70-ft. concrete bridge to connect two sections of city on each side of river.

N. C., Winston-Salem.—Forsyth County Comms. and city contemplate constructing steel bridge over Peters Creek from 4th St.; length 66 ft.; estimated cost \$2251.80.

Okla., Tulsa.—Tulsa County Comms. engaged Harrington, Howard & Ash of Kansas City, Mo., to prepare plans for concrete bridge to be constructed across Arkansas River; \$300,000 bonds lately noted voted; Lewis Cline, County Clerk.

Tex., Houston.—City let contract Eureka Paving Co., Carter Bldg., Houston, to construct reinforced concrete bridge across Harris Bayou on Main St. Blvd.; \$13,000 ap-

propriated; Ben Campbell, Mayor. (Call for bids lately noted.)

Tex., St. Jo.—City will construct 50-ft. steel or concrete bridge on Williams St. across Elm Creek; City Council receives bids until June 7; D. C. Berry, Chmn. Street Committee. (See Machinery Wanted.)

Va., Christiansburg.—Montgomery county will construct steel bridge 80 ft. long over Tom's Creek; bids until May 25; also invites bids on about 2291 cu. yds. approach fills; G. P. Coleman, State Highway Commr., Richmond. (See Machinery Wanted.)

Va., Front Royal.—Fauquier and Rappahannock counties will build bridge across Rappahannock River, 16 mi. from Front Royal; 178-ft. 3-in. structure, with 12-ft. roadway; superstructure standard 70-ft. span and approaches; concrete substructure; bids May 15; G. P. Coleman, State Highway Commr., Richmond, Va. (See Machinery Wanted.)

Va., Bedford County.—Bedford county will construct 3 following bridges: Structure 100 ft. 1½ in. long across Beaver Dam Creek, 2 mi. from Stewartville; 119 ft. long across Goose Creek, 6 mi. from Thaxton; 91 ft. 6 in. long across Bore Auger Creek, 6½ mi. from Irving; the 3 bridges to have steel superstructures, concrete substructures and 12-ft. roadway; bids until May 20; G. P. Coleman, State Highway Commr., Richmond, Va. (See Machinery Wanted.)

Va., Petersburg.—City (Robt. Cabiniss, Mayor), Chesterfield County Comms. and railway companies contemplate constructing 5-span concrete bridge across Appomattox River to replace Bishop Bridge; estimated cost \$165,000.

W. Va., New Martinsville.—Wetzel county, Grant Dist., has plans for bridge to span Falling Timber Creek. Address County Comms.

### CANNING AND PACKING PLANTS

Fla., Bradentown.—S. M. Pearce will rebuild packing plant lately noted burned.

Fla., Montbrook.—F. E. Crawford contemplates establishment of small cannery for vegetables. (See Machinery Wanted.)

Ga., Darien.—Darien Canning Co., capital stock \$5000, inceptd. by J. B. Abrams, M. V. Haas and others to can sea-food products and vegetables.

La., De Ridder.—De Ridder Steam Laundry, G. W. Cline, Props., purchased machinery for lately noted cannery; initial daily capacity 6000 cans; fruits and vegetables.

La., Marion.—F. R. Phillips will build canning factory; daily capacity 5000 to 10,000 cans; needs kiln to dry peas and beans. (See Machinery Wanted.)

Md., Belair.—Reckord Bros. will rebuild canning plant lately noted burned; plans not made; fireproof building; install equipment for canning beans and tomatoes; asks prices on scalders, packers, etc. (See Machinery Wanted.)

Mo., Springfield.—Holman Canning Co., capital \$3000, inceptd. by John W. Fairbanks and others.

N. C., Kinston.—J. D. McNeill of Chicago, Ill., is reported as contemplating erection of cannery.

Va., Richmond.—Old Homestead Mfg. Co., capital \$20,000, inceptd.; L. O. Miller, Pres.; W. Edwin Miller, Secy.

### CLAYWORKING PLANTS

Ga., Macon.—Tilling.—M. M. Driggers, Decatur, Ga., contemplates building works to manufacture tiling.

### COAL MINES AND COKE OVENS

Ala., Ensley.—Gulf States Steel Corp., Jas. Bowron, Pres., Birmingham, continues to consider construction of by-product coke-oven plant under contemplation for past 2 years; has made no definite decision and probably will not decide for several years.

Ky., Greenville.—Lam Coal Co. increased capital from \$40,000 to \$65,000.

Mo., Millard.—Sugar Creek Mining Co., Memphis, Mo., capital \$75,000, organized; J. L. Johnson, Pres.-Mgr.; L. V. Johnson, V.-P.; E. P. Johnson, Secy.; J. L. Johnson, Jr., Treas.; develop 924 acres (Pickler tract, 3 mi. from Millard); has not set date for opening bids on mining machinery.

Ky., Myrlin.—Perkins Coal Co. inceptd. by Crockett Perkins, B. E. Parker and Addie Hollan.

Ky., Whitesburg.—F. D. Buskirk, Cincinnati, O., is reported as planning organization company to develop coal lands on Lower Elkhorn Creek section of Letcher and Pike county borders.

Va., Blacksburg.—Blacksburg Coal Co., capital \$5000, inceptd.; N. H. Orr, Pres.; Seymour Price, Secy.-Treas.

Va., Lynchburg.—Ivy White Ash Coal Co., capital \$150,000, inceptd.; H. P. Adams, Pres.; C. M. Guggenheimer, V.-P.

Va., Pulaski.—Wallin Coal Corp., capital \$100,000, inceptd.; H. Hardaway, Pres., St. Paul, Va.; J. F. Wisor, V.-P.; I. P. Jordan, Secy.-Treas., both of Pulaski.

W. Va., Moundsville.—Mound City Coal Co., Oliver Bldg., Pittsburgh, Pa., organized with \$300,000 capital; Reynold Alles, Pres.; R. M. Stutler, V.-P. and Gen. Mgr., both of Pittsburgh; negotiating to purchase Mound Coal Co.'s Mound City mine and 900 acres coal land adjoining; contemplates improvements increasing daily capacity from 600 to 900 tons.

W. Va., Omar.—Island Creek Superior Coal Co., capital \$50,000, inceptd. by J. A. Kelly, E. C. Beares, A. J. Dalton and others.

W. Va., Raleigh.—Beckley Smokeless Coal Co., capital \$100,000, inceptd. by F. M. Cook, E. C. Minter, J. M. Herndon and Dr. E. R. English, all of Windling Gulf, W. Va., and others.

### COTTON COMPRESSES AND GINS

Okla., Chickasha.—A. G. Fulkerson will build cotton gin.

Okla., Maysville.—Farmers & Merchants' Gin Co. (lately noted inceptd., capital stock \$5000) organized; R. J. Wigley, Pres.; J. D. Mathews, V.-P.; F. W. Margon, Secy.; J. R. Tam, Treas.; will erect building at cost of about \$2000; install gin machinery; daily capacity, 50 bales cotton.

Tex., Abilene.—W. T. Woody, Potosi, Tex., will build cotton gin.

Tex., Abilene.—J. M. Dunagin & Co., J. M. Dunagin, Mgr., Box 447, will establish lately noted gin; let contract to D. Hendricks to erect frame building with metal roof; ma-

chinery contract let; five 80-saw gin, cost about \$7000.

### COTTONSEED-OIL MILLS

Ala., Selma.—Selma Oil, Ice & Fertilizer Co. is reported to invest \$25,000 to \$30,000 for improvements; erect additional buildings and install new machinery.

S. C., Coronaca.—Coronaca Oil Mill reorganized with W. A. Collins, Pres. and Treas., and M. G. Bowles, Secy.; contemplates improvements.

### DRAINAGE SYSTEMS

Ala., Pineapple.—R. A. Smith, Mobile, Ala., let contract J. N. Gillis & Son, Brewton, Ala., to construct canal 1½ mi. long, 40 ft. wide, changing present bed of creek; use excavated material for levees.

Fla., Miami.—State let contract Furst-Clark Construction Co. (main office, 1515 Federal Bldg., Baltimore, Md.) to dredge Miami River; State will appropriate \$4000; \$2000 secured by subscription.

Ga., Carnesville.—Broad River Drainage Dist. is reported to be organized to construct drainage system costing about \$100,000; district will comprise about 16 mi.

N. C., Charlotte.—Mecklenburg County Drainage Assn. let contract Georgia Contracting Co., Augusta, Ga., to continue drainage of McAlpine Creek in Sharon Township for distance 7 mi.; also sold county dredge-boat to contractor.

N. C., Wilmington.—Comms. New Hanover County Drainage Dist. No. 1, C. Van Leven, Chmn., invite bids until May 24 to construct drainage system, consisting of 9 mi. of canals, average depth 5 ft.; average bottom width 15 ft.; side slope 1 to 1; 53,000 cu. yds. excavation; 4 55-ft. metal culverts; 10 small wooden bridges; drain 1600 acres for development and agriculture; issued \$22,000 bonds; Engr., J. L. Becton, Wilmington; lately noted. (See Machinery Wanted.)

Tex., Eagle Lake.—Colorado County Drainage Dist. No. 1, F. C. Koons, Secy., will construct about 16 mi. drainage canals, aggregating 66,000 cu. yds. excavation; issued \$17,000 bonds; Comms.' Court receives bids until June 1; Engr., Norris Engineering Co., Wharton, Tex. (See Machinery Wanted.)

### ELECTRIC PLANTS

Ark., Booneville.—Booneville Electric Co. is reported as preparing preliminary plans for transmission lines to supply electricity to Charleston and Branch.

Ark., Plainview.—City Council granted franchise W. W. Winters to operate electric light plant.

Ark., Success.—Geo. Booser of Corning, Ark., has municipal franchise to construct electric-light plant.

Fla., Florida City.—Ice, Light & Power Co. will construct electric-light system.

Fla., Homestead.—City contemplates installation of electric plant. Address The Mayor.

Fla., Ocala.—City Council is reported to have engaged Twombly & Henney, Const. Engrs., 55 Liberty St., New York, to supervise engineering work of improvements to electric-light plant and water systems; estimated cost \$75,000.

Ga., Jackson.—Athens Ry. & Light Co. of Athens, Ga., will construct transmission line and supply electricity to Jackson.

Ga., Thomasville.—City contemplates voting on \$30,000 bonds to increase equipment of electric-light plant, etc. Address The Mayor. (See Water-works.)

Ky., Mt. Olivet.—Robertson County Light & Power Co., W. R. Bethel, Gen. Mgr. and Engr., will build lately noted electric-light and power plant; develop 60 H. P.; erect power-house building, probable cost \$500; open construction bids in June (15 to 30); will need equipment. (See Machinery Wanted.)

La., Lenzburg (not a postoffice).—Walter Buell and J. M. Doll, Shreveport, La., will build electric-light plant at Lenzburg and is installing plant at Crichton, both in Red River oil field; total cost \$20,000; let contract Cahn Electric Co. of Shreveport.

Md., St. Michaels.—Town Comms. granted 20-year franchise to Talbot Mfg. Co. to



supply electricity for lighting and power; has private electrical system for its packing plant and will install additional boilers and generators.

Mo., Higginsville.—City will probably purchase and install 250-kva. generating unit, switchboard and constant-current transformer; contracted with Corder, Mo., to furnish electricity for lighting and power; city of Corder lately reported as voting \$6000 bonds. D. Riepe is Supt. of Higginsville plant.

Mo., Wellspring.—C. H. Lawrence of St. Louis is reported to have purchased and to improve property of Wellspring Light, Power & Water Co.

N. C., Asheville.—North Carolina Electrical Power Co., W. T. Weaver, Pres., will build auxiliary steam-driven electric plant costing about \$150,000 on French Broad River at mouth of Beaverdam Creek, 4 mi. from Asheville; brick, steel and concrete construction; 120x75 ft.; 30 ft. high; install electric generating equipment this year for 400 H. P., ultimate capacity being 800 H. P.; machinery to include boilers from Walsh & Weldner Co., Chattanooga, Tenn.; steam turbine and electric generators from Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.; coal conveyors, automatic stokers, etc.; plans by Chas. E. Waddell, Consult. Engr., Asheville; construction under company's supervision, with Saml. A. Johnson as Supt.; D. M. Williams, Res. Engr.

N. C., Cape Fear (not a postoffice).—Government will construct electric-light plant for quarantine station at Cape Fear; Treasury Dept., Jos. A. Wetmore, Supervising Archt., Washington, D. C., receives bids until June 7; drawings and specifications obtainable at office Supervising Archt.

N. C., Waynesville.—City, C. H. Ray, Mayor, voted \$25,000 bonds for electric-light and power system. (Lately noted to have 6 to 9 mi. transmission; 250 H. P.; J. N. Shoelbred, Engr.)

Okla., Adamson.—Adamson Light & Power Co. (lately noted inceptd., capital stock \$5000, by J. R. Williams and others) will establish plant; cost \$3000; develop 20 H. P.; 1500 ft. transmission; will open construction bids Sept. 20; Frank Mann, Engr.

Okla., Cushing.—Cushing Public Service Co., H. Askin, Mgr., acquired and will improve property of Cushing Electric Light & Power Co.; cost about \$20,000.

Okla., Jennings.—Jennings Electric Co., capital stock \$5000, inceptd. by Robt. B. Montgomery, D. Gaylord Powell and Harry A. Koll.

Okla., Mannsville.—City contemplates purchase of electric-light plant and improvements to same. Address The Mayor.

Tenn., Crossville.—E. B. Jones and John E. Green contemplete constructing electric-light system.

Tenn., Gleason.—City voted \$10,000 bonds to construct electric-light plant. Address The Mayor. (Noted in Mch.)

Tenn., Memphis.—City, lately noted voting \$150,000 for electric-light plant, will not take definite steps toward construction within next 60 days; consulting engineers were previously employed to report on the proposition; J. H. Weatherford, City Engr.

Tenn., Milan.—City voted \$12,000 bonds to improve electric-light plant and water-works and pay indebtedness. Address The Mayor.

Tex., Nocona.—Nocona Ice & Light Co. contemplates purchasing 50 to 100 H. P. oil engine, material for about one-half mi. extension to transmission line and electrical cooking apparatus.

Tex., Hico.—Central Power & Transmission Co. contemplates building 2 substations of 250 K. W. and 25 mi. transmission lines; also contemplates purchasing material for 25 mi. of lines carrying 150 K. W. in transformers rating from 1 kva. to 10 kva.

Tex., Windom.—Texas Power & Light Co. (main office, Dallas) purchased local electric-light and power plant, and will improve.

Va., Alexandria.—Alexandria County Lighting Co. (Municipal Service Co., H. T. Hartman, Pres., Land Title Bldg., Philadelphia, Pa.) will, in addition to lately-described contracts, install 250 H. P. Heine boiler and let piping contract within next 3 weeks; F. R. Weller, Consult. Engr., Hibbs Bldg., Washington, D. C.

Va., Staunton.—Staunton Lighting Co. (Municipal Service Co., H. T. Hartman, Pres., Land Title Bldg., Philadelphia, Pa.) will, in addition to lately-described contracts, construct condenser intake and enlarge present cooling tower; F. R. Weller, Consult. Engr., Hibbs Bldg., Washington, D. C.

## FERTILIZER FACTORIES

Fla., Miami.—J. B. Dill of Miami, W. R. Comfort and W. E. Flanders of New York, and others are reported interested in organization of company to establish fertilizer factory.

Ga., Eastman.—Improved Guano Co. will rebuild plant previously burned.

## FLOUR, FEED AND MEAL MILLS

Ark., Barling.—Farmers' Milling & Feed Co., capital \$4000, inceptd. by J. F. Weindal, C. C. Rogers, J. W. Riggs and others.

N. C., Charlotte.—Interstate Milling Co., capital stock \$100,000, inceptd. by Chas. P. Moody, W. W. Grier and Geo. W. Graham, Jr.; will build flour mill.

S. C., Columbia.—Adluh Milling Co. votes May 20 on increasing capital from \$25,000 to \$75,000.

S. C., Harvin.—Frank P. Ervin plans erection mill with daily capacity 30 bbls. flour.

S. C., Lake City.—Chas. M. Kelly advises that lately-noted mill is about completed; machinery purchased, cost about \$4000, includes roller, grist and feed mills; contemplates installation of thresher and hay press, not yet purchased.

S. C., Ruby.—Ruby Roller Mills (lately noted inceptd., capital stock \$5000) organized; J. S. McGregor, Pres.; Robt. M. Newsom, V.-P.; J. C. Huntley, Jr., Secy.; W. R. Edkins, Treas.; J. H. Hancock, Mgr.; operate plant having capacity of 25 bbls. flour daily and 8 bu. meal per hour.

## FOUNDRY AND MACHINE PLANTS

Ark., Pine Bluff.—Castings, etc.—Standard Brake Shoe & Foundry Co., F. L. Dilley, Mgr., will probably take over (lately noted acquired) Dilley Foundry Co.'s plant July 1; now erecting buildings at Pullen St. and Iron Mountain tracks, and intends to remove Dilley plant to this location; arranged

N. C., Burlington.—Gas Plant.—Board of Aldermen granted franchise Jos. B. Rider and Wm. H. Fritchman of New York to build gas plant and distributing system.

Okla., Ada.—Ada Oil & Gas Co. applied to City Council for franchise to construct natural-gas distributing system.

Okla., Beggs.—Artrusse Oil Co., capital stock \$10,000, inceptd. by C. C. Kimble, W. H. Reading and W. D. Hall.

Okla., Drumright.—Oil Refinery.—George Ames will build oil refinery; daily capacity 1000 bbls.; ordered material.

Okla., Holdenville.—Prehistoric Oil & Gas Co., capital stock \$30,000, inceptd. by J. P. Williams, H. C. Hyde, A. E. Walker and others.

Okla., Muskogee.—Pagosa Oil Co., capital \$24,000, inceptd. by C. W. Culp, C. A. Cowper and Rees Evans.

Okla., Muskogee.—Sunlight Oil Co., capital stock \$100,000, inceptd. by A. W. Culp, J. M. Givens and C. A. Cowper.

Okla., Muskogee.—Roscoe Oil & Gas Co., capital stock \$5000, inceptd. by H. P. Abbey, A. C. Swis and J. C. Wilhoit.

Okla., Sapulpa.—Oil Refinery.—Sapulpa Refining Co., capitalization \$1,100,000, inceptd. by W. D. Richardson, Virgil Hicks and M. L. Bartlett.

Okla., Stillwater.—Stillwater-Pawnee Gas Co., capital stock \$60,000, inceptd. by O. A. Brewer of Stillwater, Fred S. Liscum of Pawnee, Okla., and others.

Okla., Waurika.—Ingalls Oil & Gas Co., capital \$15,000, inceptd. by J. E. Ingalls, A. D. Allen, C. L. Dillman and Hays Dillard.

Tex., Austin.—Austin-Thrall Oil Co., capital stock \$15,000, inceptd. by H. C. Jackson, John P. Caldwell and H. C. Nolen.

Tex., Austin.—Kendall Oil Co., capital stock \$7500, inceptd. by Frank De Lashmut, W. M. Kendall and J. S. Rogan.

Tex., Austin.—Favorite Oil Co., capital

Tex., Hutto.—Hutto Oil & Gas Co., capital stock \$25,000, inceptd. by T. G. Hyslop, R. M. Womack and William Klattenhoff.

Tex., Jacksonville.—Jacksonville Oil Co., capital \$50,000, inceptd. by J. M. Pressler, W. H. Willis and M. W. Morris.

Tex., Liberty Hill.—Austin Northwestern Oil Co., capital stock \$16,000, inceptd. by W. L. Lee, J. W. Connell and C. Mankin.

Tex., Lometa.—Thrall-Lampasas-Lometa Oil Co., capital stock \$8000, inceptd. by R. L. Walker, J. W. Culp and R. E. Cole.

Tex., Schwertner.—Strauss-Humble Oil Co., capital stock \$10,000, inceptd. by Earl Strauss, O. R. Humble and A. S. Clark.

Tex., Taylor.—Texas-Thrall Oil Co., capital stock \$10,000, inceptd. by C. V. Compton, J. A. Jones and C. H. Kellam.

Tex., Taylor.—Rich Hill Oil Co., capital stock \$25,000, inceptd. by L. J. Dimmitt, W. W. Walton and L. C. Smith.

Tex., Taylor.—Lone Star Oil Co., capital \$24,000, inceptd. by C. V. Compton, S. G. Gerner and S. I. Reinhardt.

Tex., Taylor.—Southeast Oil & Gas Co., capital \$10,000, inceptd. by F. C. Floeckinger, H. F. Speckle and Ed. Doak.

Tex., Temple.—Bell-Thrall Oil Co., capital stock \$15,000, inceptd. by M. V. Baugh, R. L. Culbertson and E. J. Burns; D. G. Wilson, care City National Bank, interested.

Tex., Temple.—Noble Oil Co., capital stock \$12,000, inceptd. by H. C. Poe, J. C. Mitchell and A. J. Jarrell.

Tex., Temple.—Temple-Thrall Oil Co. (care of D. G. Wilson of City National Bank) closed drilling contracts; bought casing; will need piping, tanks, etc.; company lately noted inceptd., capital stock \$10,000. (See Machinery Wanted.)

Tex., Temple.—Noble Oil Co., capital \$7500, organized by D. G. Wilson of City National Bank and others; has let drilling contract.

Tex., Thrall.—Home Independent Oil Co., capital stock \$24,000, inceptd. by A. E. Hauls, A. R. Grosse and W. J. Harlan.

Tex., Thrall.—Diebel Farm Oil Co., capital stock \$40,000, inceptd. by William Diebel, L. W. Fuchs and Albert Klatz.

W. Va., Charleston.—Nolen Oil & Gas Co., capital \$50,000, inceptd. by Edward Gehart, J. T. Nolen, A. S. Alexander and others.

## ICE AND COLD-STORAGE PLANTS

Fla., Homestead.—City contemplates establishment of ice plant. Address The Mayor.

Fla., Lakeland.—City will not construct ice plant; has plant of 100 tons daily capacity. (Recent report incorrect.)

Fla., Tampa.—Cosmopolitan Ice Co. will erect 1-story brick ice plant to cost \$18,000; day labor; ordered machinery.

Fla., Ybor City, Station Tampa.—Cosmopolitan Ice Co., G. Lore, Pres., will erect 1-story brick ice plant at 6th Ave. and 21st St. to cost \$18,000; day labor; ordered machinery.

Ky., Carlisle.—Carlisle Electric Light & Power Co. will build ice plant.

N. C., Charlotte.—Stephen L. Snowden, New York; Wm. H. Hillyer, Atlanta, Ga., and P. M. Phifer, Columbia, S. C., plan organization company with capital exceeding \$1,500,000 to buy and build ice factories in North Carolina and other Southern States; contemplates having about 40 plants.

Okla., Guymon.—Guymon Electric Light & Power Co. contemplates building ice factory in connection with electric-light plant.

Tex., San Benito.—Roy Campbell will build additional precooling plant for precooling vegetables and fruit.

Tex., Victoria.—Texas Southern Electric Co. is reported to have let contract to build brick cold-storage house to cost about \$8000. (Reported in February to construct 50-ton distilled water ice-making plant.)

## IRON AND STEEL PLANTS

Ala., Bessemer.—Iron Furnace.—Tennessee Coal, Iron & Railroad Co., Birmingham, Ala., will reline Bessemer furnace No. 3; has begun work.

## LAND DEVELOPMENTS

Ark., Hunter.—Prairie View Rice & Land Co., capital \$25,000, inceptd. by W. P. Dawson, W. E. Mathis and G. C. Scudamore.

Fla., Garden City, P. O. Gardenville.—W. D. Davis, Tampa, Fla., will develop townsite of Garden City, on Hillsborough Bay; pleasure resort; plans golf course, racing course for automobiles, etc.; interested in prices on building materials, hardware, pumps, etc. (See Machinery Wanted.)

## PROPOSAL ADVERTISEMENTS

IN THIS ISSUE

PUBLISHED ON PAGES 70 and 71

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for buildings and all machinery except blower. (See Machinery Wanted.)

Ky., Louisville.—Cars.—Continental Car Co., capital stock \$40,000, inceptd. by A. B. McKinley, John S. Akers and A. B. Blakey.

S. C., Charleston.—Machine Shop.—Atlantic Coast Lumber Corp. of Georgetown, S. C., will build machine shop; cost \$30,000 to \$35,000.

Tex., Abilene.—Electrical Appliances.—J. H. Sharpe, formerly of Marshall, Tex., will establish machine shop for manufacturing electrical appliances.

Tex., Crosbyton.—Steam Engines.—Non-adjustable Engine Co., capital \$50,000, inceptd. by W. J. Williams, W. C. Booton and J. W. Carter.

W. Va., Huntington.—General Repairs.—Ohio Valley Machine Works, 713 2d Ave. (lately noted inceptd., capital stock \$10,000), organized; W. N. Magoon, Pres.; J. S. Hicks, V.-P.; C. E. Taylor, Secy.; H. W. Jones, Treas. and Mgr.; general repairs; has machine-shop equipment.

## GAS AND OIL ENTERPRISES

Ala., Birmingham.—Birmingham Ry., Light & Power Co. is reported to extend gas mains to Pratt City, Ensley, Fairfield and other cities; let contract United States Cast-Iron Pipe & Foundry Co. (Southern sales office, Chattanooga, Tenn.) to furnish about 3000 tons 16-in. pipe, costing \$125,000 to \$150,000.

Ga., Columbus.—Gas Plant.—Gas Light Co. applied to Railroad Co., Atlanta, for authority to issue \$40,000 additional capital stock.

Ga., Waycross.—Gas Plant.—Gratlot County Gas Co., Johnson City, Tenn., submitted proposition to build gas plant; 18 mi. mains.

La., Shreveport.—Your Shot Oil Co., capital stock \$30,000, inceptd. by W. M. Ford, Pres.; J. T. Ferguson, V.-P.; S. G. Kimel, Secy.-Treas.

stock \$25,000, inceptd. by O. L. Koock, Henry Wukash and T. J. Christol.

Tex., Austin.—Austin-Thrall Petroleum Co., capital stock \$8000, inceptd. by N. R. Lowry, H. B. Harless and E. B. Simmons.

Tex., Austin.—Cinco Oil & Gas Co., capital stock \$10,000, inceptd. by E. B. Robinson, D. M. Cameron and S. R. Fulmore.

Tex., Austin.—Home Bell Oil Co., capital stock \$2000, inceptd. by James E. Ferguson, A. J. Zilker and W. M. Walton.

Tex., Felton.—Belton-Salado Oil Co., capital \$50,000, inceptd. by W. M. Taylor, O. Lusk and Neal Russell.

Tex., Brenham.—Brenham Oil Co., capital stock \$15,000, inceptd. by W. E. Raspberry, T. B. Botts and T. A. Low.

Tex., Calvert.—Brazos Valley Oil Co., capital stock \$12,000, inceptd. by W. R. Vaughan, W. C. Taylor and D. C. Wheelock.

Tex., Cameron.—Riverside Petroleum Co., capital stock \$25,000, inceptd. by F. M. Duncan, B. R. Nash and W. F. Stewart.

Tex., Canyon.—Thrall Security Oil Co., capital \$25,000, inceptd. by A. J. Dossett, W. R. Rogers and F. C. Fehrendorff.

Tex., Hallsville.—Hallsville Oil & Gas Co., capital stock \$30,000, inceptd. by A. E. Findley, C. P. Nelson and I. E. Russell.

Tex., Haskell.—Haskell Oil & Gas Co., capital stock \$3000, inceptd. by A. J. Smith, T. W. Johnson and J. A. Hankerson.

Tex., Holland.—Holland Gas & Oil Co. incorporated by E. C. Sonntag, W. F. Douthitt and C. W. Doddard.

Tex., Houston.—Oil Pipe Lines, etc.—The Texas Co. voted capital increase from \$30,000,000 to \$37,000,000 for additional investments in pipe lines, manufacturing capacity, transportation and distributing facilities; reported that \$4,000,000 will be expended in Texas; E. C. Lufkin, Pres., New York. (Lately noted to vote May 1 on this increase.)

Fla., Lakeland.—Italian American Development Co. organized; S. E. Trumbull, Pres.; N. H. Rutherford, V. P.; H. B. Smith, Secy.-Treas.; develop 6240 acres, 3½ mi. from Lakeland; improvements to include clearing land and building house on every 10 acres; cost about \$132,000; C. E. White, Engr. (Lately noted inceptd., \$30,000 capital.)

N. C., Winston-Salem.—Pantego Farms Co., capital \$125,000, inceptd. by Edgar D. Vaughn, F. A. Fogle and Clement Manly.

Tenn., Chattanooga.—Lula Lake Land Co., 413 Temple Court (lately noted inceptd., capital \$25,000), organized; Nelson E. Taylor, Pres.; John R. Evans, V. P.; C. R. Jolly, Secy.; E. D. Herron, Treas.; will develop 380 acres on crest of Lookout Mountain; improve drives; R. S. Mason, Engr.

W. Va., Elm Grove.—Geo. E. Stifel (lately noted with H. F. Carter as purchaser) advises Skelly property was purchased and will be developed for residential section; 1400 ft. frontage; improvements to include sewer, water and street construction; will organize company, capital not less than \$50,000; Koller & Conrad, Engrs., Schmulbach Bldg., Wheeling, W. Va.; address Security Trust Co., Wheeling.

### LUMBER MANUFACTURING

Ala., Gadsden.—Coosa River Mills contemplates installation of small hand-saw mill and other machinery. (See Machinery Wanted.)

Ala., Sweet Water, P. O. Aimwell.—Hardin Bros. completed sawmill, 20,000 ft. daily capacity; are building drykiln; contract let to L. Moore Drykiln Co., Jacksonville, Fla.

Ala., Selfville.—Blount Lumber Co., Birmingham, Ala., will rebuild lately-burned kilns; let contract for 2 kilns to L. Moore Drykiln Co., Jacksonville, Fla.

Ga., Baden, R. F. D. from Quitman.—South Georgia Grocery Co. will rebuild sawmill reported burned at loss of about \$10,000.

Ky., Maysville.—Mason Lumber Co. increased capital from \$20,000 to \$30,000.

Ky., Maysville.—Limestone Lumber Co., capital \$15,000, inceptd. by McAtee Case, D. B. McDowell and C. C. Dohyans.

Miss., Estill.—Shepard-Jenkins Lumber Co. (lately noted inceptd., capital stock \$5000) organized; Pres., H. A. Hoover, 1864 McCormick Bldg., Chicago; V. P. and Mgr., J. J. Shepard; Secy.-Treas., B. W. Jenkins; will erect 30x60-ft. mill and 24x30-ft. commissary; ordinary construction; install circular mill, cost \$5000; manufacture plain and quarter-sawn white and red oak, and red gum, cypress and cypress shingles, and oak and cypress cross-ties; daily capacity, 25,000 ft.

Miss., Forest.—W. A. Davenport of Alberta, La., and J. R. Mitchell, Pres. and Secy.-Treas., respectively, of Bienville Lumber Co., are arranging for site on which to build lumber plant; daily capacity 115,000 ft.

Mo., St. Louis.—Dian Lumber Co., capital stock \$5000, inceptd. by Wm. F. Pfeiffer, Chas. E. Amos and Otto F. Pfeiffer.

N. C., Forney.—Norwood Lumber Co. will install drykiln; let contract to L. Moore Drykiln Co., Jacksonville, Fla.

N. C., Newbern.—Chas. H. Hall will erect lately-noted saw and planing mill by local day labor; purchased machinery; daily capacity, 20,000 to 25,000 ft. rough and dressed pine lumber.

N. C., Wilmington.—Frank L. Slaff, 16th and Market Sts., purchased Knox Lumber Co.'s plant on Smith's Creek and plans to install drykilns, planing mill and other machinery.

W. Va., Huntington.—Wolf Creek Lumber Co., capital \$100,000, inceptd. by D. E. Hewit, A. M. Hewit, G. H. Parker and others; of-ficers not elected; purchased timber tract and will erect mill.

### METAL-WORKING PLANTS

Md., Baltimore.—Tin Cans.—Canton Co., Commerce and Water Sts., let contract to Burns & Russell, 1103 American Bldg., Baltimore, to erect extension of factory at 327-9 Boston St. for occupancy of W. W. Boyer & Co.; building for manufacturing, storage and office purposes; 4 stories; 90x140 ft.; packing-house, 35x150 ft.; pump and boiler house, 26x58 ft.; ordinary construction; Barrett's specification roof; heating and lighting reserved; cost \$55,000; plans by owner. (Noted in April.)

### MINING

Ga., Junction City.—J. R. Hime Sand Co., Atlanta, Ga., contemplates installation of sand-loading plant; asks prices on equipment. (See Machinery Wanted.)

Ga., Vinings.—Felspotash.—Cobb County Chemical Mining Co., 801 Third National Bank Bldg., Atlanta, Ga., will rebuild plant lately noted burned; erect several buildings, of fireproof and mill construction, cost about \$30,000; rebuilding under direction of company's engineering, manufacturing and purchasing Dept.; Geo. H. Rasch, Chicago, Pres.; J. W. Robinson, V. P. and Mgr.; Irving Hawtin, Secy.-Treas.; will install conveying, grinding and transmission machinery; daily capacity of plant 200 tons felspotash. (See Machinery Wanted.)

La., Woodworth.—Gravel.—Rapides Gravel Co. is erecting 20-car-per-day screening and washing plant; developing about 800 acres; present output about 20 cars (600 cu. yds.) daily; will increase to 40 cars (800 to 1000 cu. yds.); has machinery; Geo. K. Force, Pres.; J. W. Troxel, Secy.-Treas. (Noted in Mch.)

Okla., Tulsa.—Lead and Zinc.—Washta Lead & Zinc Co., capital stock \$20,000, inceptd. by Clifton M. Lane, Wm. W. Edwards and Jas. O. Galloway.

### MISCELLANEOUS CONSTRUCTION

Ark., Helena.—Levee.—Cotton Belt Levee Dist. No. 1 let contract Bert, Bond & McMurray to construct about 1,388,000 cu. yds. 40-ft. banquettes; length 24 mi. (Call for bids lately noted.)

Fla., Clearwater.—Dock.—City let contract John Phillipoff to repair dock at Island Park.

Fla., Miami.—Concrete Arch.—H. J. Freeman, Buena Vista, Fla., advises lately-noted arch will be constructed at cost of \$12,000; location, over Biscayne Drive at terminus Dixie Highway; arch 50 ft. high, 72 ft. wide, depth 9 ft.

Miss., Gulfport.—Pier.—City invites bids on construction of pier on west beach; if bids are favorable, will probably issue \$10,000 bonds. Address The Mayor.

Mo., Kansas City.—Dyke and Revetment.—Lieut. Col. Herbert Deakne, U. S. Engr., Kansas City, now receiving proposals for standard dyke and revetment construction at various locations below Kansas City; opens bids May 10 for 4300 lin. ft. timber dyke and 9000 lin. ft. revetment; May 20 for 5900 and 2250 lin. ft. timber dyke and 12,000 lin. ft. revetment; May 24 for 5500 and 1000 lin. ft. dyke and 5000 lin. ft. revetment. (See Machinery Wanted.)

Tex., Dallas.—Dam.—Dallas Automobile Country Club, A. P. Cunningham, Secy., 1023 Busch Bldg., will probably open bids in July or August to construct lately-noted dam; cost between \$3000 and \$6000.

### MISCELLANEOUS ENTERPRISES

Ark., Jonesboro.—Greenhouses.—P. L. Graves, 1100 Monroe St., will build 31x140-ft. greenhouse with 6000 sq. ft. of glass. (Lately noted.)

Ark., Little Rock.—Sand and Building Materials.—C. H. Jueryens will expend \$15,000 to erect lifting crane, sand bins and side tracks on river front at Ashley St.; plans to erect cement-house and platform for crane and probably warehouse.

Fla., Jacksonville.—Naval Stores.—Blount Naval Stores Co., capital \$100,000, inceptd. by B. W. Blount, John Bryce, D. A. Daughtrey and others.

Ky., Owensboro.—Publishing.—News Publishing Co., capital stock \$5000, inceptd. by Claude B. Abshire and Frank B. Posey of Owensboro and Fred A. Heuring of Rockport, Ind.

Miss., Aberdeen.—Printing.—Examiner Printing Co., capital \$3000, inceptd. by Gaston Therrell, C. L. Tubb, Annie Lowe Jonas and others.

Mo., Joplin.—Supplies.—Kleinschmidt & Hemphill Supply Co., capital stock \$10,000, inceptd. by J. W. Kleinschmidt, Gertrude M. Hemphill and A. H. Hemphill.

Mo., Kansas City.—Marble and Tile.—Kansas City Marble & Tile Co., capital \$50,000, inceptd. by Gustav F. Keller, Alfred Guidici and Henry F. Lamsing, Jr.

Mo., St. Louis.—Dairy.—Steinlage Sanitary Milk Co. will build dairy; steel and concrete; 1 story; 50x110 ft.; highest point 32 ft.; interior of tile brick; install refrigerating plant, 160 tons brewery-type machinery for bottling milk, crowning bottles, etc.; capacity for filling 5000 bottles per hour; estimated cost \$50,000.

Mo., St. Louis.—Publishing.—Pulitzer Publishing Co. leased site 100x126 ft. at 12th and Olive Sts. on which to erect building reported to cost \$400,000.

N. C., Wilmington.—Water.—P. D. Satchwell Garrell Bldg., interested in promoting

freestone water company; asks prices on bottles. (See Machinery Wanted.)

Okla., Drumright.—Water Bottling.—Arthur O'Dell and W. M. Roberts are reported to install water-bottling plant.

Okla., Frederick.—Grain Elevator.—Alexander Grain Co., capital \$10,000, inceptd. by J. W. Alexander and others.

S. C., Charleston.—Lighterage and Transfer.—Charleston Lighterage & Transfer Co., J. M. Whitsitt, Pres.-Treas., and E. P. Guerard, Jr., Secy. (lately noted inceptd., capital \$10,000), will need tugs, lighters, stevedoring equipment, conveyors, etc. (See Machinery Wanted.)

Tenn., Knoxville.—Bottled Water.—Radium Water Co., 704 Chamberlain St., W. C. Chandler, Secy.-Treas., will manufacture radium-charged water; medicinal. (Lately noted inceptd., capital stock \$10,000.)

Tenn., Nashville.—Dairy.—Nashville Pure Milk Co., capital stock \$25,000, inceptd. by Alex. Perry, R. M. Perry, W. A. Griswold and others.

Tenn., Nashville.—Construction, etc.—Southern Finance & Construction Co., capitalization \$250,000, inceptd. by John H. Parsons, Richard R. Herzer and others.

Tex., Fort Worth.—Hardware.—Texas Heavy Hardware Co., capital \$75,000, inceptd. by C. E. Faeth, W. A. Hollifield and Morgan Bryan.

Tex., Houston.—Fire-alarm System.—Ammons Automatic Fire-alarm System, capital \$100,000, inceptd. by J. B. Ammons, Evander Ammons and Otis McGaffey.

Tex., Temple.—Fire-alarm System.—City votes June 1 on \$40,000 bonds to install electric fire-alarm system and to erect and improve fire stations. Address The Mayor.

Tex., Winnie.—Farm, Creamery, etc.—J. L. Evans (lately reported as securing large interests, including portion of Winnie town-site) will erect 3 sets of farm buildings, and creamery; interested in data and prices on boiler, engine, silos, lighting system, water system, cane syrup mill, kraut mill, grist mill, vinegar plant and vegetable cannery; G. N. Southwick, Mgr. (See Machinery Wanted.)

Va., Lynchburg.—Mineral Water.—Piedmont-Bedford Springs Co., capital \$25,000, inceptd.; J. Herbert Guthrie, Pres.; Jas. H. Guthrie, Secy.-Treas.

Va., Norfolk.—Contracting.—Haskell & Corckin Co., capital \$75,000, inceptd.; J. Corckin, Pres.; N. J. Gould, V. P.; J. Haskell, Secy.-Treas.

Va., Richmond.—Laundry.—Model Steam Laundry, capital \$50,000, inceptd.; J. R. Hutchison, Pres.; P. H. Allen, Secy.-Treas.

### MISCELLANEOUS FACTORIES

Ark., Black Rock.—Pearl Buttons.—Black Rock Pearl Button Co., capital \$5000, inceptd. by Arthur R. Chalmers, Harry Chalmers, both of Amsterdam, N. Y., and others.

Ark., Devall Bluff.—Pearl Buttons.—Devall Bluff Pearl Button Co. inceptd. by Arthur R. Chalmers, Harry Chalmers, both of Amsterdam, N. Y., and others.

Ark., Clarendon.—Pearl Buttons.—Clarendon Pearl Button Co., capital \$5000, inceptd. by Harry Chalmers, Arthur R. Chalmers, both of Amsterdam, N. Y., and others.

Ark., Newport.—Pearl Buttons.—Newport Pearl Button Co., capital \$5000, inceptd. by Arthur R. Chalmers, Harry Chalmers, both of Amsterdam, N. Y., and others.

Fla., Jacksonville.—Syrup Refinery.—Alabama-Georgia Syrup Co., Montgomery, Ala., is having plans and specifications prepared for syrup refinery.

Ga., Macon.—Disinfectants, etc.—Empire Products Co. inceptd. with Gates G. Waxelbaum, Pres., and Morris Klein, Secy.

Ky., Boyd.—Hammocks.—Folding Hammock Co., capital \$2000, inceptd. by B. L. Fogle, Jas. H. Knox, Jas. Woods and others.

Ky., Clinton.—Carbonating.—Clinton Carbonating Co. (lately noted organized) will erect \$1000 ordinary construction building; install equipment for capacity 200 cases 10 hrs.

Ky., Pineville.—Ice-cream, etc.—Pineville Cream Co. (lately noted) organized with G. M. Asher, Pres. and Treas.; T. H. Davidson, Secy. and Mgr.; let contract for erection of 30x70-ft. fireproof building; purchased ice-cream and dairy equipment, cost \$1600; estimated daily capacity, 200 gals. cream and 50 gals. milk; wants refrigerator data. (See Machinery Wanted.)

Md., Baltimore.—Calcium Carbide & Ferro-Silicon-Shawingnan Electro Products Co., capitalization \$250,000, organized by Chas. E. F. Clark, Pres. of Pennsylvania Water & Power Co., U. S. Fidelity & Guaranty Bldg.,

Baltimore; J. E. Aldred of New York, Chrmn. directors same corporation, and others; will build plant to manufacture calcium carbide and ferro silicon; annual capacity, 10,000 to 20,000 tons; install electric furnaces; use large quantity electric power from transmission system of Consolidated Gas, Electric Light & Power Co., Liberty and Lexington Sts.; latter company's electricity largely generated at Pennsylvania Water & Power Co.'s hydro-electric development at McCall's Ferry, Pa., on Susquehanna River.

Mo., Kansas City.—Mops.—Burdette Mfg. Co., C. S. Van Noy, Pres., Wheeling Ave. and Independence Rd., has purchased additional machinery and will remove main portion of needed machinery from old plant; manufacture mop yarn, mop heads, mops, washboards; Ed Winn Construction Co., Contr. for lately-noted building.

Mo., Kansas City.—Cigars.—Otto Levy Cigar Co., capital \$10,000, inceptd. by Donald Munro, Otto Levy and Thos. McGee.

Mo., St. Louis.—Poster Mountings.—Gale Poster Mounting Co., capital \$5000, inceptd. by Samuel Lears, John D. Bone and Frank B. Call.

Mo., St. Louis.—Packages.—International Package Co., capital stock \$10,000, inceptd. by A. J. Fitzsimmons, N. R. Fill and F. Edward O'Neill.

Mo., St. Louis.—Fuel Briquettes.—Briquette Fuel Co., capital stock \$12,000, inceptd. by C. A. and P. S. Marquis and L. G. Bretmeyer.

N. C., Hickory.—Canning Outfits.—Home Canner Mfg. Co., Harris Bldg., reorganized and inceptd. with \$125,000 capital stock by E. L. Flowers, W. X. Reid, C. E. Crosby and others; continue manufacturing home canning outfits.

N. C., Newbern.—Bottling.—Satan-Et Bottling Co. inceptd. by A. R. Conner, E. M. Lupton, O. L. Wetherington and others.

N. C., Oxford.—Tobacco.—Imperial Tobacco Co. will enlarge plant; purchased adjoining warehouse.

N. C., Winston-Salem.—Eye Glasses.—Scrib Co., capital \$60,000, inceptd. by A. S. Mitchell, D. R. Aiken and Thos. Maslin.

N. C., Winston-Salem.—Coffee.—Purity Coffee Co., J. D. Long, Mgr., Cor. 6th and Chestnut Sts., has not yet organized; as lately stated, has rented building; will install machinery costing \$2500; products, coffee in packages, and peanuts; coffee-roasting capacity 450 lbs. hourly, not daily as lately reported.

Okla., Tulsa.—Gas Tanks.—Automatic Gas Tank Co., capital stock \$50,000, inceptd. by F. M. Ephland, N. O. Bird, W. A. Weir and others.

S. C., Anderson.—Horse Collars.—T. Q. Anderson will rebuild horse-collar factory reported burned at loss of \$17,500.

Tenn., Knoxville.—Shoes.—Henegar-Dooley Shoe Co. (lately noted inceptd., capital stock \$100,000) will conduct wholesale shoe business.

Tenn., Knoxville.—Heat Regulators.—The Fulton Co. contemplates erection of additional buildings costing \$75,000 at Cumberland Ave. plant; designs and construction by company, which desires quotations on materials, including cement, structural steel, roofing and lumber; machinery mainly purchased; may need naphtha-type gas-producer plant and probably 2 or 3 carloads wrought-iron piping. (See Machinery Wanted.)

Tenn., Nashville.—Chero Cola.—Chero Cola Co. organized to build \$25,000 plant; C. J. Houser, Pres.; W. H. Elam, Treas.-Mgr.

Tex., Aldin.—Mugler Mfg. Co., capital \$12,000, inceptd. by C. G. Mugler, Jas. Ford and Gay Ford.

Tex., Lexington.—Creamery.—Lexington Creamery & Mfg. Co. organized; C. W. Raschke, Pres.; C. L. Seelke, V. P.; D. F. Wade, Secy.-Treas.; F. P. Czichos, Gen. Mgr.

Tex., San Angelo.—Creamery.—San Angelo Creamery Co. is reported to enlarge creamery.

Tex., Winnie.—J. L. Evans will establish lately-noted creamery; G. N. Southwick, Mgr. of Evans interests. (See Miscellaneous Enterprises.)

W. Va., Richwood.—Extracts.—Cherry River Extract Co. will build extract plant; main building to be 3 stories; 300 ft. long; steel and concrete.

### MOTORS AND GARAGES

Ala., Huntsville.—Garage.—Tennessee Valley Motor Co., capital \$6000, organized with Jas. L. Kendall, Pres.; W. P. Dilworth, Secy.-Treas., and L. C. Gibbs, Gen. Sales



Mgr.; let contract L. C. Sugg to erect garage; fireproof; brick; 50x150 ft.; contain repair shop; accommodate 50 rent cars. (Lately noted inceptd.)

Ark., Little Rock—Automobiles.—Central Auto Co., capital \$10,000, inceptd. by H. E. Thom, G. M. Thom, Justin Matthews and C. M. Matthews.

Ark., Little Rock—Garage.—Morris M. Cobb is reported to erect motor arcade at 3d and Center Sts.; 2 stories; 88x108 ft.; 2 sides almost of solid plate glass; sales and display room to have tile floor; Archt., Thos. Harding, 604 Southern Trust Bldg., Little Rock; Contr., Ben Catherina, 1221 W. 7th St., Little Rock. (Lately noted.)

Fla., Miami—Automobile Showroom.—McCrann & Williams will build automobile showroom; 28x105 ft.; concrete blocks.

Fla., Winter Haven—Garage.—E. B. Hall let contract Seymore & Craig to build garage; 60x100 ft.; white sand brick. (Lately noted.)

Ga., Atlanta—Automobile Line.—Vittur Auto Service Co., capital stock \$5000, inceptd. by Chas. Vittur, Ernest J. Vittur, E. H. Vittur and Clifford Vittur.

Ga., Macon—Automobiles.—Sulphur Springs Motor Co., capital stock \$1000, inceptd. by W. F. Morgan, L. G. Schrewsberry and J. D. Denton.

Ky., Owensboro—Garage.—Central Motors Co., 4th and Locust Sts., B. J. Cavin, Prest., and Elmer Little, Mgr., will rebuild garage noted burned; erect 100x66 ft. fireproof building; cost \$7000; Chas. Chalfin, Owensboro, Contr.

Ky., Paducah—Automobiles.—Foreman Automobile Co., capital \$50,000, inceptd. by S. E. Foreman, E. C. Phelps and T. A. Miller.

Md., Baltimore—Garage.—Wm. J. Tickner let contract to Consolidated Engineering Co., 243 Calvert Bldg., Baltimore, to erect garage on Old Lane near Retreat St.; 188.7x105 ft.; brick; cost \$10,000; Haskell & Barnes, Archts., 301 N. Charles St., Baltimore.

Md., Baltimore—Garage.—Isaac E. Emerson let contract to Wm. H. Parker, 1429 E. Baltimore St., Baltimore, to erect garage at 562 Eutaw Pl.; 110x119 ft.; brick; slag roof; steam heat; cost \$33,000; Jos. Evans Sperry, Archt., 409 Calvert Bldg., Baltimore.

Md., Frederick—Garage.—J. Harry Grove and Willie V. Wolfe will build garage; concrete; ground floor of concrete; 1 story high in rear.

Mo., Kansas City—Assembling Plant.—Ford Motor Co. (main office, Detroit, Mich.) is reported to expend \$350,000 to double capacity of assembling plant at 11th St. and Winchester Ave. in Sheffield Factory Dist.; 125x400 ft.; 3 stories.

Mo., St. Joseph—Automobiles.—Herff-Brooks Motor & Sales Co., capital \$3000, incorporated by C. E. Schwindler, John A. Keller and Howard A. Hall.

Tenn., Memphis—Garage.—Lockwood & Co., 36 Madison Ave., are having plans prepared by Hubert D. McGee for garage to replace burned structure; 1 story; steel and concrete construction; cost about \$35,000. (Lately noted.)

Va., Staunton—Automobile Line.—Staunton Auto Transportation Co., capital stock \$25,000, inceptd.; T. K. Hackman, Prest.; W. F. Brower, Secy.

## RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Ky., Lexington—Louisville & Nashville R. R., W. H. Courtenay, Ch. Engr., let contract Roberts & Schaefer Co., Chicago, to equip 600-ton 4-track reinforced concrete coaling station.

Tex., Galveston—Gulf, Colorado & Santa Fe Ry., F. Merritt, Ch. Engr., Galveston, provides (in annual budget) \$22,660 for constructing shops, engine-houses, etc. (Lately noted contemplating \$300,000 improvements to include shops and engine-houses.)

Tex., Palestine—Texas State R. R., C. H. Hurdleston, Mgr., is having lately-reported roundhouse, car sheds, etc., erected by company's force.

Va., South Richmond—Southern Ry. let contract to Alsop & Pierce, Newport News, Va., to erect oilhouse in connection with increase of terminal facilities; \$6975.

## ROAD AND STREET WORK

Ala., Birmingham—City let contract R. G. Hill & Co. to improve 39th St. from 1st to 5th Ave.; cost \$4200; Julian Kendrick, City Engr. (Bids lately noted.)

Fla., DeLand—Volusia county votes June 8 on \$400,000 bonds to construct roads; brick; width 9 ft. Address County Comms.

Fla., DeLand—Volusia county votes June 8 on \$400,000 bonds to construct hard-surfaced roads and concrete bridges. Address County Comms.

Fla., Green Cove Springs.—Clay county votes May 18 on \$450,000 bonds to construct roads. (Lately noted to have plans by J. B. McCrary Co. of Atlanta, Ga., for 30 mi. road estimated to cost \$120,000.)

Fla., Homestead.—Dade County Comms. will form special road district and issue \$100,000 bonds for highway improvements.

Fla., Lake City.—City will pave certain streets; cost about \$30,000; bids until May 31; J. W. Layne, Secy. Board Public Works; A. S. Miller, Engr. (See Machinery Wanted.)

Fla., Palmetto.—City will expend \$150,000 for brick pavements, curb and gutters; J. E. McCrary Co., principal contractor, Atlanta, Ga.; concrete work by C. Rowlett, Palmetto; bricklaying commenced.

Fla., Tavares.—Lake County Comms., Dist. No. 4, M. V. Simpson, Commr., asks bids until June 7 to construct roads, including 98,973 lin. ft. roadway, 25,888 cu. yds. excavation, 112,024 sq. yds. modified asphalt pavement, raising 7 bridges, etc.; J. B. McCrary Co., Engr., 1408 Third National Bank Bldg., Atlanta. (Lately noted.)

Fla., Winter Park.—City, W. C. Temple, Mayor, voted \$10,000 bonds for street paving.

Ga., Atlanta—Asa Candler, Jr., let contract to Case & Cothran, 1507 Candler Bldg., Atlanta, to construct concrete road, 16 ft. wide, 3000 ft. long, on Briarcliff estate, near Atlanta.

Ga., East Lake, P. O. Atlanta.—City voted \$4000 bonds to improve streets; Howard Geldert, City Clerk. (Lately noted.)

Ga., Lafayette.—Walker county votes July 7 on \$75,000 bonds to improve roads. Address County Comms. (Lately noted.)

Ga., Savannah.—Chatham County Comms., Savannah, and Bryan County Comms., Clyde, Ga., will construct highway.

Ga., Thomasville.—City contemplates voting on \$50,000 bonds to pave streets. Address The Mayor.

Ky., Eminence.—Henry county will reconstruct road between New Castle and Eminence; estimated cost, \$14,000. Address County Comms.

Ky., Louisville.—City will pave Dupuy St. from Adair to Kentucky St. and from Caldwell to Adair St. and Howard from 18th to 20th St.; Board of Public Works, Roger G. McGrath, Secy., receives bids until May 20. (See Machinery Wanted.)

Ky., Morganfield.—Union county contemplates voting on \$450,000 bonds to improve roads. Address County Comms.

La., Lake Charles.—Calcasieu Parish Police Jury, H. G. Chalkley, Prest., let following 43 mi. earth and gravel roads contracts: Highway 16, to Worthington Construction Co., Viterbo Bldg., Lake Charles; highways 6, 11 and 10, to Francis T. Constant, Alexandria, La.; highway 8, to Grubbs & Hebert, Orange, Tex.; this work is part of system for which \$900,000 was available.

La., Lake Charles.—Calcasieu parish will grade and gravel about 2 mi. road from Ryan and Alvin Sts. to south end proposed Calcasieu River bridge; bids until June 1 by Police Jury, E. C. House, Clerk; Fred Shutts, Parish Engr. (See Machinery Wanted.)

Md., Baltimore.—Paving Commission, R. Keith Compton, Chrmn. and Consult. Engr., will grade, curb and pave with sheet asphalt and granite block, on concrete base, the following: Contract No. 115, on Holliday and Fayette Sts.; contract 116, Philpot, Block, Willis, Bethel and Sharp Sts.; contract 117, Pratt St.; bids by Board of Awards, John Hubert, Acting Prest., until May 19. (See Machinery Wanted.)

Md., Baltimore.—City will pave Patterson Park Ave. from North Ave. to Clifton Park with sheet asphalt; Contract 139; 1550 sq. yds.; bids until May 19; John L. Sanford, Prest. Comms. for Opening Streets. (See Machinery Wanted.)

Md., Centerville.—Queen Anne's county will construct section State-aid highway upon or along Chester Rd. between Stevensville and Phillips Corner, about 1.44 mi.; County Comms. receive bids until May 11. (See Machinery Wanted.)

Miss., McComb City.—City let contract P. C. Powers & Son to construct 3000 sq. yds. concrete sidewalks; C. F. Sherman, Engr.

Miss., Meridian.—Lauderdale county votes June 10 on \$50,000 bonds to connect improved roads in county with paved streets in city. Address County Comms.

Miss., Pass Christian.—City Council is reported as planning to issue \$30,000 bonds to improve sidewalks, etc. Address The Mayor. (See Water-works.)

Miss., Shannon.—City votes June 1 on \$1800 bonds to grade and gravel streets; J. H. Smith, Mayor.

Miss., Starkville.—Oktibbeha county, First Dist., let contract F. D. Harvey & Co., Memphis, Tenn., to construct 31 mi. highway; \$130,000 available; Thomas & Wellborn, Engrs. (Bids lately noted.)

Mo., Fayette.—City let contract John A. Stewart of Columbia to pave Church St.

Mo., Joplin.—Joplin Club, Leslie L. Travis, Prest., will appoint committee to secure subscriptions toward construction of road from Galena, Kans., to Commerce and Miami, Okla.; proposes to secure \$3500 in Joplin.

N. C., Elizabeth City.—City let contract G. W. Switzer & Sons to pave Riverside Ave. and Road St.; former will be about 20,000 sq. yds. and will contain 1,000,000 bricks, for which contract was lately awarded; latter contains about 12,000 sq. yds. (Previously noted.)

N. C., Lincolnton.—City plans to issue \$20,000 for street and other improvements; C. E. Childs, Mayor.

N. C., Lexington.—Davidson County Road Commission, L. V. Phillips, Varner Bldg., Secy., will open bids May 15 to construct some portion of lately-noted sand-clay roads; R. T. Brown, Engr., Lexington. (See Machinery Wanted.)

N. C., Moore's Springs.—W. G. Moore, proprietor Moore's Springs Hotel, is promoting construction of sand-clay highway via Piedmont, connecting with Danbury-Walnut Cove Rd.; cost \$5000 to \$6000.

N. C., Sylva.—City will pave streets with bitulithic; let contract. Address The Mayor.

S. C., Chesterfield.—Chesterfield county, Steer Pen township, voted \$23,000 bonds to construct roads. Address County Comms.

S. C., Chesterfield.—Chesterfield county, Cheraw township, voted \$40,000 bonds to construct gravel roads. Address County Comms.

S. C., Greenville.—City will construct 70,000 sq. yds. street paving, 20,000 sq. yds. sidewalk paving, 25,000 lin. ft. granite curbing, 10,000 lin. ft. combination cement curb and gutter, necessary storm sewers, catch basins, etc.; C. P. Ballenger, City Engr., receives bids until May 14; John B. Marshall, Mayor. (See Machinery Wanted.)

Tenn., Columbia.—Maury county Comms. have Legislative authority to issue \$300,000 bonds to construct roads.

Tenn., Jasper.—Marion county will issue \$40,000 bonds, of which \$25,000 is to be expended on roads in county and \$15,000 on Dixie Highway. Address County Comms.

Tenn., Knoxville.—Knox County Road Comms. let contract Dykes & Co. to macadamize Wright's Ferry Rd.; \$1500 appropriated; John L. Callaway, County Clerk.

Tenn., Nashville.—City Comms., J. W. Dashiell, Secy., let contracts totaling \$498,913.60 for street paving: Foy-Proctor Co. at \$105,329.25 for wood block paving at \$54,400.20 for bitulithic paving, and at \$43,351 for granite block paving; B. T. Young at \$145.80 for concrete paving; Southern Bitulithic Co. at \$66,302.20 for bitulithic paving, each of Nashville; Southern Asphalt & Construction Co., Birmingham, Ala., at \$68,719.11 for bituminous macadam, tarvia "X" penetration method, and at \$39,456.50 for bituminous macadam, asphalt penetration method; W. W. Southgate, City Engr. (Call for bids lately noted.)

Tenn., Sweetwater.—City votes June 10 on \$5000 bonds to improve streets. Address The Mayor.

Tex., Ballinger.—City will expend \$5000 to pave streets; let contract. Address The Mayor.

Tex., Bryan.—City let contract to C. L. Bernay, Houston, Tex., at \$21,411 to pave intersecting streets to Main St.

Tex., Belton.—W. T. Montgomery, San Antonio, Tex., has \$15,000 contract to construct gravel roads.

Tex., Clarksville.—City, C. E. Terry, Mayor, will construct certain streets; 5112 cu. yds. excavation for grading; 13,531 sq. yds. vertical fiber brick pavement on concrete base, with concrete pavement, curb and gutter; bids until May 31; E. F. Petersen, Engr., Muskogee, Okla. (See Machinery Wanted.)

Tex., Clarksville.—Clarksville Road Dist. voted \$300,000 bonds and White Rock Dist. voted \$20,000 bonds for road construction; both districts of Red River county. Address County Comms.

Tex., Commerce.—City voted \$32,500 bonds to improve streets. Address The Mayor.

Tex., Ennis.—City let contract Kaw Paving Co., Topeka, Kans., at \$57,339.91 for 26,000 sq. ft. street paving; 3-in. vertical fiber brick; 4-in. concrete base; concrete curbs and gutters; G. G. Edwards, Engr.; W. D. Farris, Mayor. (Call for bids lately noted.)

Tex., Fort Worth.—Tarrant County Commissioners instructed County Auditor to invite bids to construct about 3300 ft. gravel road from east end of Capps St., on South Side, to connect with Mansfield Rd.

Tex., Hallettsville.—Lavaca County Road Dist. No. 1 (including Yonkum) voted \$50,000 bonds to construct roads. Address County Comms. (Lately noted.)

Tex., Jourdanton.—City voted \$10,000 bonds to improve streets. Address The Mayor.

Tex., Kountze.—Hardin County Comms. Court invites bids until May 24 for clearing and grubbing, earth work, concrete arches, culverts, furnishing and laying shell, rock or gravel, etc., in construction of highways in Road Dist. No. 1; Engr., Wm. Bradburn, Sour Lake, Tex.; W. W. Dies, County Judge. (See Machinery Wanted.)

Tex., Sinton.—San Patricio Road Dist. No. 1 will construct highways, including bridges, culverts, drainage canals and approach to Corpus Christi causeway; Permanent Road Comms. of Dist. No. 1, Gregory, Tex., receive bids until May 21; Bartlett & Ranney, Consult. Engrs., Chandler Bldg., San Antonio, and Commonwealth Bldg., Dallas. (See Machinery Wanted.)

Va., Petersburg.—City will construct 3000 yds. asphaltic concrete roadway paving on N. Union St.; J. R. Jones, Chrmn. Street Committee, receives bids until May 15; R. D. Budd, City Engr. (See Machinery Wanted.)

W. Va., Huntington.—City will grade, curb and pave with vitrified brick sections of 23d St., 1st Ave., Guyan Ave., Cedar St., etc.; City Comms. receive bids until May 21; A. B. Maupin, City Engr. (See Machinery Wanted.)

## SEWER CONSTRUCTION

Ala., Birmingham.—City let contract American Cast Iron Pipe Co., Birmingham, to construct sanitary sewers in vicinity of their plant; estimated cost \$10,700; Julian Kendrick, City Engr. (Bids lately noted.)

Ark., Benton.—City is considering formation of improvement district, plans including construction of sewer system and water-works to cost \$100,000. Address The Mayor.

Fla., Homestead.—City, J. B. Moffett, Sanitary Commr., will install sewage-disposal system. (See Machinery Wanted.)

Ga., Atlanta.—City let contract to Case & Cothran, 1507 Candler Bldg., Atlanta, for construction of Group 2, Atlanta lateral sewers, on Mildred, Rowland, Ethel, Caldwell, Chesnut, Bedford and Adamson Sts., Hemphill and Buna Festa Aves. and Durant Pl.; about 53,000 brick, 3000 ft. B. M. lumber, 6000 cu. yds. excavation, 1000 cu. yds. rock and 6000 ft. 8-in. pipe; city furnishes all material excepting brick.

Ga., Baxley.—A. F. Byrd, Ordinary, and town authorities let contract to construct sewer system.

Ga., East Lake, P. O. Atlanta.—City voted lately-noted \$15,000 bonds to construct sewer and drainage system; Howard Geldert, City Clerk.

Ga., Jefferson.—City let contract to Case & Cothran, 1507 Candler Bldg., Atlanta, to construct sewers; Solomon-Norcross Co., Atlanta, Engr. (Bids lately noted and work described.)

Ga., Tallapoosa.—City contemplates issuing \$40,000 sewer and water bonds. Address The Mayor.

Md., Baltimore.—City will construct storm-water drains, contract No. 44, and Dist. 46 trunk sewer, sanitary contract 152. Contract 44—7300 lin. ft. 30-in. to 63-in. masonry drain, 16,600 lin. ft. 12-in. to 24-in. vitrified pipe drain, 5390 lin. ft. 12-in. to 18-in. inlet connections, 125 manholes and 248 inlets. Contract No. 152—10,130 cu. yds. earth and rock excavation and 5900 lin. ft. 27-in. sewer. Bids until May 19; Chas. England, Chrmn. Sewerage Com. (See Machinery Wanted.)

Miss., Gulfport.—City Comms. will issue \$5000 bonds to extend sanitary sewer system.

N. C., Sylva.—City engaged Parker, Parker & Houser, Engrs., Asheville, N. C., to make surveys preparatory to constructing sewer system.

Okla., Beggs.—City votes May 20 on \$35,000 bonds to construct sewer system. Address The Mayor.

Tex., Clarksville.—City, C. E. Terry, Mayor, will construct sewers; includes about 779 lin.

ft. 10, 12, 15 and 18-in. vitrified pipe; bids until May 31; E. F. Petersen, Engr., Muskogee, Okla. (See Machinery Wanted.)

Tex., Pittsburg.—City granted franchise to Dr. S. G. Duff to construct sewer system; let contract to build disposal tank; ordered material. (Noted in March.)

Va., Williamsburg.—City contemplates voting on bonds for sewer system and water-works. Address The Mayor.

W. Va., Huntington.—City will construct sewer in alley between 6th and 7th Aves. (15-in. vitrified sewer tile) and in alley south of 7th Ave. (12-in. vitrified sewer tile); City Commrs. receive bids until May 21; A. B. Maupin, City Engr. (See Machinery Wanted.)

### TELEPHONE SYSTEMS

Ky., Brownsville.—Edmonson County Home Telephone Co., capital \$2000, inceptd. by John T. Webb, P. L. Smith and A. B. Sanders.

Ky., Dingus.—Independent Telephone Co. inceptd. by T. H. Bradley, A. L. Gillian, A. C. Bradley and others.

Ky., Fort Hill.—Goose Creek Telephone Co. inceptd. by H. J. Thomas, Willis Robertson, W. D. Thornton and others.

Ky., Hazel Green.—Wolf County Telephone Co., capital stock \$1000, inceptd. by E. A. Johnson, Henry Cecil and R. P. Swango.

Ky., Holland.—Holland Independent Telephone Co. inceptd. by W. P. Hughes, H. T. Tracy, B. W. Bannon and others.

Ky., Oil Valley, P. O. at Barrier.—Elks Spring Valley Telephone Co. inceptd. by O. C. Bell, T. C. Catron and J. C. Elam.

La., Plaquemine.—Bayou Jacque Telephone Co. organized with Resaire A. Moreau, Prest.; Levy Nugent, V.-P.; Etienne Barbe, Secy.-Treas.; will construct telephone system about 26 mi. long.

Okla., Tulsa.—Dickson Telephone Co., R. F. D. No. 10, Tulsa, inceptd. by Henry Dodd and J. M. Harrison of Tulsa and A. S. Wentz of Choctaw, Okla.

S. C., Camden.—Southern Bell Telephone & Telegraph Co. (main office, Atlanta, Ga.) is reported to expend \$21,000 in improvements to telephone system.

Tex., Beaumont.—Southwestern Telephone & Telegraph Co. is reported to expend about \$200,000 for exchange building, equipment and other improvements; exchange to be 3 stories, fireproof and cost about \$50,000; equipment, including switchboard of 5000 capacity, will cost \$100,000; underground and overhead cables and other outside equipment to cost \$50,000; ordered material for cable and telephone extensions in northern section of city estimated to cost \$20,000.

Va., Progress, R. F. D. from Penhook.—South Mutual Telephone Co., Dr. G. O. Giles, Prest. (lately noted inceptd., capital \$5000), will operate rural telephone line; start with 75 phones; lines from ½ mi. to 13 mi.; no equipment needed.

Va., Wheatfield.—Wine Telephone Co., capital \$3000, inceptd.; Elmer Godlove, Prest., Lebanon Church; F. M. Smith, V.-P., Lebanon Church; W. B. Little, Secy.-Treas., Wheatfield.

### TEXTILE MILLS

Ala., Siluria.—Sheetings, etc.—Buck Creek Cotton Mills decided upon electric drive; will install electric motors; use 1000 electrical H. P. from transmission system of Alabama Power Co., Birmingham; has 20,000 ring spindles, 400 looms, etc.

Ala., Sylacauga.—Sheetings, etc.—Avondale Mills, Birmingham, Ala., decided upon electric drive for Eva Jane Mills and Central Mills; will install electric motors; use 3000 electrical H. P. from transmission system of Alabama Power Co., Birmingham; Eva Jane plant has 40,000 ring spindles, 1200 looms, etc., and Central plant has 25,536 ring spindles, etc.

Ky., Maysville.—Twine, etc.—Maysville Cotton Mills will probably rebuild binding-room and wareroom reported burned at estimated loss of \$25,000.

N. C., Kings Mountain.—Cotton Yarn.—Anna Cotton Mills increased capital from \$95,000 to \$125,000; now operating 3952 ring spindles, 2060 twister spindles, etc.

### WATER-POWER DEVELOPMENTS

Va., Balcony Falls.—Virginia Western Power Co., A. H. Grimsley, C. E., Clifton Forge, Va., is proceeding with construction lately-noted hydro-electric plant; dam, solid portion 13 ft. high, 5 movable sections; total 18 ft.; 44 mi. transmission system now being constructed; connect Alderson, Ronceverte and Lewisburg, W. Va.; Covington, Clifton

Forge, Eagle Rock, Buckhannon, Glasgow, Buena Vista and Lexington, Va.; total of 120 mi. main line; develop 2600 H. P.; Wm. C. Whitner, Engr., Rock Hill, S. C. (Recent item under Va., Clifton Forge.)

### WATER-WORKS

Ark., Benton.—City is considering formation of improvement district, plans including construction of water-works and sewer system to cost \$100,000. Address The Mayor.

Fla., Ocala.—City Council is reported to have engaged Twombly & Henney, Const. Engrs., 55 Liberty St., New York, to supervise engineering work of improvements to water-works and electric-light plant; estimated cost \$75,000.

Ga., East Lake, P. O. Atlanta.—City voted lately-noted \$3000 bonds to improve water-works; Howard Geldert, City Clerk.

Ga., Jefferson.—City let contract Case & Cothran, 1507 Candler Bldg., Atlanta, to construct water-works; Solomon-Norcross Co., Atlanta, Engr. (Bids lately noted and work described.)

Ga., Stone Mountain.—City votes June 5 on issuing \$12,000 bonds for water-works and thorax improvements. Address The Mayor.

Ga., Tallapoosa.—City contemplates issuing \$40,000 water and sewer bonds. Address The Mayor.

Ga., Thomasville.—City contemplates voting on \$30,000 bonds to extend water mains and increase equipment on water and light plant. Address The Mayor.

La., Vivian.—City let contract Chicago Bridge & Iron Works, Chicago, Ill., at \$22,785 to construct water-works; Edw. W. Gantt Co., Engr., Dallas, Tex. (Call for bids lately noted.)

Md., Annapolis.—Annapolis Water Co. contemplates building filtration plant to cost \$20,000.

Miss., Pass Christian.—City Council is reported as planning to issue \$20,000 bonds to enlarge water-works, improve sidewalks and erect city hall. Address The Mayor.

Mo., Lee's Summit.—City is having revised plans prepared by Henricl, Kent & Lowry, Reserve Bank Bldg., Kansas City, for water-works; estimated cost \$30,000.

Mo., Rich Hill.—City, N. C. Williamson, Mayor, will extend water mains.

N. C., Sylva.—City engaged Parker, Parker & Houser, Engrs., Asheville, N. C., to make surveys preparatory to construction of water-works.

Okla., Beggs.—City votes May 20 on \$35,000 bonds to construct water-works. Address The Mayor.

Okla., Lehigh.—City engaged Benham Engineering Co., Oklahoma City, to prepare plans and specifications for water-works extensions; \$40,000 (bonds voted in 1914) available.

Tenn., Knoxville.—Radium Water Co., 704 Chamberlain St., W. C. Chandler, Secy.-Treas., will manufacture and deal in radium-charged water for medicine. See Miscellaneous Enterprises. (Lately noted inceptd., capital \$10,000.)

Tenn., Milan.—City voted \$12,000 bonds to improve water and light plant and pay indebtedness. Address The Mayor.

Tex., Cumby.—City voted \$10,000 water-works bonds; plans to purchase Cumby Water & Light Co.'s plant for \$2300 and expend \$7000 for improvements to include steel tower and tank of 50,000 gals. capacity and distributing system; Levi I. Mercer, Mayor (lately noted.)

Tex., Marlin.—City is considering \$50,000 bond issue to extend water-works. Address The Mayor.

Va., Covington.—City votes June 5 on \$25,000 bonds to purchase site, construct 2-compartment reservoir and building, and enlarge and extend water mains; E. B. Butler, Mayor.

Va., Williamsburg.—City contemplates voting on bonds for water-works and sewer system. Address The Mayor.

### WOODWORKING PLANTS

Ala., Bay Minette.—Hampers, etc.—Alabama Mfg. Co. will operate factory with daily capacity 1500 hampers; concrete building, 25x60 ft., cost \$6000; machinery purchased, cost \$3000; make hampers and crates; all contracts let.

Ark., Piggott.—Staves.—Myers Stave & Mfg. Co. increased capital stock from \$25,000 to \$50,000.

Ark., Jelks, P. O. at Grays.—Staves.—Baxter Stave Co., capital \$7500, inceptd. by L. V. and J. E. Baxter and Geo. T. McCoppin.

Ky., Little Leatherwood (not a P. O.)—Cooperage.—Louisville Cooperage Co., Louisville, Ky., reported to install stave mills to manufacture white oak lumber lately purchased.

La., New Orleans.—Cooperage, etc.—Gulf Woodworking Co. will rebuild plant at N. Cortez and Toulouse Sts. reported burned at estimated loss of \$8000.

Miss., Estill.—Shingles and Cross-ties.—Shepard-Jenkins Lumber Co., H. A. Hoover, Prest., will install plant to include manufacturing of cypress shingles, oak and cypress cross-ties. (See Lumber Manufacturing.)

Miss., Waynesboro.—Picture Frames, etc.—T. O. Slaughter contemplates establishment of plant to manufacture round and oval picture frames and moldings; wants data on saws, lathes and electric motors. (See Machinery Wanted.)

S. C., Kingstree.—Lumber Specialties, Coffins, etc.—Kingstree Mfg. & Construction Co. inceptd., capital \$3000; Chas. H. Singleton, Prest.; J. B. Alsbrook, Secy.-Treas.; operates plant manufacturing lumber, lumber specialties, coffins, etc., and conducts contracting and construction; equipment supplied.

### FIRE DAMAGE

Ala., Clanton.—Public school; loss \$5000. Address The Mayor.

Ala., Oneonta.—Shuff Dry Goods Co.'s store; J. H. Lowery's warehouse; Haygood Real Estate Co.'s building; Oneonta Bakery; Frank McPherson Grocery Co.'s building; moving-picture theater; loss \$20,000.

Fla., Jacksonville.—Building occupied by Tyler Grocery Co., Jacksonville Grocery & Supply Co., Thos. Nooney & Sons and Atlantic & Gulf Grocery Co.; estimated loss \$45,000.

Fla., Palatka.—Florida Woodenware Co.'s plant; loss \$50,000 to \$60,000.

Fla., South Jacksonville.—Keystone Lumber Co.'s plant at Keystone Bluff; loss \$40,000.

Fla., St. Petersburg.—T. J. Wilcox's residence on Lakeview Ave.; loss \$3000.

Ga., Baden, R. F. D. from Quitman.—South Georgia Grocery Co.'s sawmill; loss about \$10,000.

Ga., Baden, R. F. D. from Quitman.—Thompson's Mill, being operated by South Georgia Grocery Co. and Bank of Quitman.

Ga., Smarts.—D. O. Trammell's store.

Ga., Statesboro.—Dr. J. E. Donehoo's residence; loss \$15,000.

Ky., Lexington.—J. H. Yellman's hemp factory at Limestone and 7th Sts.

Ky., Louisville.—Harry R. Whiteside's stables and produce building; loss \$15,000.

Ky., Maysville.—Maysville Cotton Mills' binding-room and wareroom; estimated loss \$25,000.

Ky., Owensboro.—Central Motors Co.'s garage; loss \$12,000.

La., New Orleans.—Mrs. Louise Lepley's residence at 2418 Dumaine St., loss \$3500; Mrs. Geo. Kelley's residence at 4038 LaFaye St., Gentilly Ter., loss \$4500.

La., New Orleans.—Gulf Woodworking Co.'s plant at North Cortez and Toulouse Sts.; estimated loss, \$8000.

Md., Cumberland.—Cumberland Brewing Co.'s stables at Center and Franklin Sts.; loss \$10,000.

Md., Hagerstown.—Hoch Mfg. Co.'s factory and foundry; loss \$8000 to \$10,000.

Md., Ingleside.—Store, dwelling, barn, stable, carriage-house and corner, occupied by

J. Percy Bittle and owned by Howard Wilson, Barclay, Md.; loss \$6500.

Mo., Willow Springs.—Provia Bros' warehouse; Catholic Church, St. Louis & San Francisco R. R.'s station, warehouse, coal chutes, etc. (V. K. Hendricks, Asst. Ch. Engr., St. Louis); Gene Produce Co.'s building; Robt. Hood's residence; Geo. Burgen's residence and several other buildings; total loss \$75,000.

Miss., Summit.—Mrs. Farr's store, owned by Mrs. Annie Teunisson; loss \$10,000.

N. C., Mocksville.—Walkers' Bargain House, loss \$8000; Baily Bldg., loss \$7000; W. H. Baily's building, loss \$3000.

Okla., Oklahoma City.—Livestock Exchange at Oklahoma National Stockyards; loss \$75,000; Daily Livestock News' plant, W. R. Martineau, editor, in Exchange Bldg., loss \$10,000.

S. C., Anderson.—Jenkins & McGowan's store; loss \$3500.

S. C., Anderson.—T. Q. Anderson's horse-collar factory, loss \$17,500; J. E. Barton's 2 warehouses, loss \$13,000; Piedmont & Northern Ry.'s freight station, loss \$20,000 (E. Thomason, Gen. Mgr., Charlotte, N. C.)

S. C., Ellmore.—M. G. Arant's store building; loss \$3500.

S. C., Florence.—Gate City Warehouse & Supply Co.'s central section; loss about \$10,000.

S. C., Spartanburg.—Dean Street public school; loss \$8000. Address The Mayor.

S. C., Sumter.—J. W. Brunson's gin.

S. C., Winnsboro.—T. W. Ruff's barn; loss \$8000.

Tenn., Union City.—W. C. Morris' Gem Theater, owned by Dr. W. A. Nailling.

Tex., Abilene.—Royal Theater, N. Sward, Mgr.; loss \$6000 to \$10,000.

Tex., Amarillo.—Santa Fe Hotel.

Tex., Dallas.—Mrs. J. Gordon Jones' residence at 5112 Victor St., owned by T. W. Trout; loss \$7000.

Tex., Dawson.—Dawson Union Gin Co.'s plant; estimated loss, \$9000.

Tex., Fort Worth.—Mitchen Hotel; loss \$6000.

Tex., Irene.—Two stores owned by R. B. Spencer & Co.

Tex., San Gabriel.—F. M. Amason's store; loss about \$3500.

Tex., Stamford.—Dwelling occupied by M. H. Fenter and owned by Jas. F. Rogers of Dallas.

Tex., Sumner.—Marion Brown's residence; loss \$8000.

Tex., San Antonio.—Tulane Hotel; loss \$5000.

Va., Charlottesville.—A. D. Payne's barn and three other buildings on Anita Stud Farm; loss \$6000.

Va., Norfolk.—Five double houses at Lawrence St. and Jefferson Ave., South Norfolk, owned by E. M. Tilley and estate of Foster Black, and residence owned by Miss Bettie Poindexter; total loss \$8000.

Va., Suffolk.—Holland & Lee Peanut Corporation's main warehouse; loss \$100,000.

W. Va., Charleston.—J. P. Clark's 3 cottages; loss \$5000.

W. Va., Wheeling.—Wentzel Packing Co.'s plant; loss \$40,000.

### DAMAGED BY STORM

Ky., Hopkinsville.—Two tobacco barns, stock barn, 3 tenant-houses, garage, cabin, etc., of Thos. Jones, near Church Hill; loss \$8000.

## BUILDING NEWS

### BUILDINGS PROPOSED

#### APARTMENT-HOUSES

Ala., Huntsville.—L. C. Sugg accepted plans for apartment-house at Lincoln and Randolph Sts.

D. C., Washington.—Jos. J. Moebis, Colorado Bldg., will build apartment-house; 107x50 ft.; 7 stories; cost \$125,000; Claughton West, Archt., Colorado Bldg., Washington. (Lately noted.)

D. C., Washington.—Col. Geo. Truesdell has plans by Arthur B. Heaton, 801 Wilkins Bldg., Washington, for apartment-house at Columbia Rd., Wyoming Ave. and 20th St.; 7 stories; 85x184 ft.; fireproof, brick and

stone; tile and slag roof; electric light; bids opened May 15.

D. C., Washington.—Mrs. Byron Richards has plans by Mr. Hunt, Building Inspector's Office, Municipal Bldg., Washington, for converting dwelling at 200 A St. S. E. into apartment-house; joist floor construction; hot-water heat; gas light; bids opened May 14.

Fla., St. Augustine.—Mrs. T. A. Pacetti is erecting apartment-house; 2 stories.

Md., Baltimore.—Benjamin and Lee S. Meyer are having plans prepared by Smith & May, Professional Bldg., Baltimore, for apartment-house at Lake View Drive and



Brookfield Ave.; site 87x116 ft. (Lately noted.)

Md., Baltimore.—Chauncey Apartment Co. is having plans prepared by Geo. R. Callis, Jr., 55 Knickerbocker Bldg., Baltimore, for apartment-house on Chauncey Ave., near Linden Ave.; 126x75 ft.; tapestry brick; stone trimming; cost about \$75,000.

Mo., Kansas City.—A. C. Black, 3821 Highland Ave., will erect two 2-story 6-room apartments on Central St.; brick; cost \$15,000 each.

Mo., St. Louis.—Arthur A. Williams and Vincent A. Chinnberg will erect 2 four-family apartment buildings on Westgate Ave.; mott brick; stone sills; marble vestibules; Carthage stone steps; steam heat; tile baths; hardwood floors and finish; 1-story garage in rear; Chas. L. Thurston, Archt., St. Louis.

Mo., St. Louis.—A. Koberman will erect 2-story flat at 3735 Bamberger St.; cost \$3000; construction by owner.

Mo., St. Louis.—Alice Realty & Building Co. is reported to erect single and double flats on Shaw Ave. under supervision of Anderson Stocke-Buermann Realty Co.

Mo., St. Louis.—J. D. Rouse will erect 2 apartment buildings on Westminster St.; each to contain three 4-room suites to cost about \$15,000 each.

Mo., St. Louis.—Mrs. V. Dietrich will erect addition to store and tenement-house.

Mo., St. Louis.—Henry A. Barnett will erect 2 double brick flat buildings on De Tonty St.; hardwood floors; steam heat.

Tenn., Memphis.—Geo. Forrest will erect stores and flats. (See Stores.)

Tenn., Nashville.—David F. Nelson and Thos. W. Gardner will erect apartment-house at Louise Ave. and Elliston Pl.; 3 stories; cost \$14,000; Hard & Gardner, Archts., Nashville.

Tenn., Nashville.—Hart & Gardner will erect brick apartments on Division St.; cost \$10,900.

Tenn., Nashville.—J. W. McClelland will erect stores and apartments. (See Stores.)

Tex., Dallas.—James Jackson will erect 16-room brick apartment-house at 614 W. Jefferson St.; cost \$6500.

Tex., El Paso.—L. E. Hooker is reported to erect apartment-house at W. San Antonio and Chihuahua Sts.

Tex., El Paso.—Haymon Krupp is having plans prepared for store and apartment building. (See Stores.)

Tex., San Antonio.—H. Reuter will erect 18-room apartment-house on W. Laurel St.; cost \$7000.

Va., Norfolk.—J. Davis Reed, Portsmouth, Va., will erect building for store and apartment-house. (See Stores.)

Va., Norfolk.—E. A. Watkins will erect 2 six-family apartments and 3 two-family apartments; cost \$36,175.

Va., Richmond.—Harvey C. Brown will erect 2-story brick tenement-house on Oakwood Ave.; cost \$4800.

Va., Richmond.—Davis Bros. will erect 2-story apartment-house on Mulberry St.; 12 five-room suites; completion by Sept. 1.

Va., Richmond.—Lafayette Apartment Corp. will erect apartment-house at Grace and Ryland Sts.; 5 stories; cost \$50,000; Marcus Hallett, Archt., Richmond.

W. Va., Bluefield.—Conley Snidow will erect store and apartment building. (See Stores.)

W. Va., Huntington.—Wild & Boette will erect 3-story flat building; cost \$9000.

W. Va., Welch.—R. L. Hutson will erect five 6-room apartment-houses on Water St.

W. Va., Wheeling.—Dr. W. H. McLain has plans by Fred F. Faris, Wheeling, for 2 apartment-houses at 12th and Eoff Sts.; each to contain three 6-room suites.

## ASSOCIATION AND FRATERNAL

Ky., Lexington.—Y. M. C. A. has plans by F. J. Manley, Lexington, to remodel building at 169 N. Mill St. for boys' annex. (Lately noted.)

Md., Baltimore.—Louis Miller will remodel building for store and lodges. (See Stores.)

Mo., Joplin.—Joplin Lodge of Perfection, Scottish Rite Masons, is having plans prepared by Hubbell & Greene, Dallas, Tex., for cathedral; estimated cost \$150,000. (Lately noted.)

North Carolina.—Building Comm. G. U. O. of O. P. adopted plans by Benton & Moore, Wilson, N. C., for proposed building; location not decided; 80x100 ft.; 5 stories and mezzanine; fireproof steel frame; electric elevator;

to contain lodgerooms, stores, offices, theater; cost \$75,000 to \$100,000.

Okla., Bartlesville.—Y. M. C. A. has plans for building to cost about \$50,000; bids received until May 20 by Shattuck & Hussey, Archts., 19 S. La Salle St., Chicago.

Tex., Abilene.—Abilene Lodge No. 136, Woodmen of the World, contemplates erecting lodge building; 2 stories; brick; cost \$10,000 to \$15,000.

Tex., La Pryor.—A. F. & A. M. is considering erection of building.

Tex., Waco.—Baylor University will erect Y. M. C. A. building; is having plans prepared by Geo. Burnett, Waco; cost about \$45,000.

W. Va., Logan.—Logan Lodge, A. F. & A. M., will erect Masonic Temple at Main St. and Jefferson.

## BANK AND OFFICE

D. C., Washington.—Potomac Electric Power Co. opened bids to erect office building at 14th and C Sts. N. W.; 192x96 ft.; 5 stories; fireproof; J. L. Marshall, 700 10th St. N. W., Washington, low bidder at \$57,803. (Lately noted.)

D. C., Washington.—National Savings & Trust Co., 15th St. and New York Ave., has plans by A. P. Clark, 816 14th St. N. W., Washington, for remodeling bank quarters and erecting addition; 50x70 ft. 1st floor, 50x37 ft. above; 4 stories; fireproof; brick and stone; concrete and terra-cotta arches; vapor heat; electric light; cost about \$150,000; may not make addition at present, only remodeling; bids opened May 12.

Mo., St. Louis.—Union Electric Light & Power Co. is reported to erect 18-story office building at 9th and St. Charles Sts. Company wires Manufacturers Record: "No details; no definite information."

North Carolina.—Building Comm. G. U. O. of O. F. adopted plans for building to contain offices, etc. (See Association and Fraternal.)

N. C., Lexington.—First National Bank acquired buildings on Main St. and will remodel for bank building; install new front, remove second floor, etc.

Okla., Beggs.—Bert C. Overton, Okmulgee, Okla., prepared plans for bank building.

Okla., Tulsa.—L. L. Hutchison will erect building. (See Stores.)

S. C., Spartanburg.—Bank of Spartanburg, A. B. Calvert, Prest., will remodel building at Main and Wall Sts.; install marble fixtures, tile floors; prism lights in pavement; new heating system, 3 vaults, etc.

Tenn., Memphis.—Boyle & Boyle are reported having plans prepared by Harker & Cairns, Memphis, for office building 43 S. Main St.; 3 or 4 stories. (Lately noted.)

Tenn., Nashville.—McKendree Methodist Church is considering erection of office building in front of church with arcade leading to church building; reported to have 2 stores on lower floor, each with frontage of 25 ft.; 8 stories; fireproof; steel structural work; cost about \$300,000; Dr. M. M. Cullom, Chrmn. Building Com. Rev. T. C. Ragsdale, pastor, advises Manufacturers Record that no definite and final decision has been made.

Tex., El Paso.—Commercial National Bank is reported receiving bids through Trost & Trost, El Paso, for building at Mills and Mesa Sts.; 3 stories at present; ultimate height, 14 stories; brick and terra-cotta; 50x88 ft.; fireproof; initial cost, \$75,000 to \$100,000. (Previously noted.)

Tex., Galveston.—Hutchings-Sealy Bank has plans by A. J. Bellis, Galveston, to remodel bank building at cost of about \$15,000; contracts now being let; materials include bronze grill work, Italian marble wainscoting, metal ceiling, hard plaster, tile flooring, plate glass, electric fixtures; completion in 90 days.

Tex., Littlefield.—First National Bank will erect 2-story brick bank and office building.

W. Va., Wheeling.—Farmers and Merchants' National Bank has plans by C. W. Bates, Wheeling, for bank building; 3 stories; cost \$40,000.

## CHURCHES

Fla., West Palm Beach.—Baptist church will erect building; W. H. Petsch, R. A. Hardin and others, Bldg. Com.

Fla., Winter Park.—Grace Methodist Church, Rev. J. D. Bundy, pastor, will erect building on 3d St.; cost \$3500.

Ga., Atlanta.—People's Methodist Church will erect Sunday-school room; cost about \$5000. Address The Pastor.

Ky., Louisville.—Covenant Presbyterian Church will erect brick veneer dwelling at 1809 W. Jefferson St.; cost \$4000. Address The Pastor.

Ky., St. Matthews.—Holy Trinity R. C. Church, Rev. Fr. Bohlsen, pastor, will build church and parochial school; 2½ stories; cost \$25,000; Fred Erhart, Archt., 400 Norton Bldg., Louisville.

Md., Baltimore.—Exeter Memorial M. E. Church has plans by F. E. Beall, 306 St. Paul St., Baltimore, for building at Jefferson St. and Milton Ave.; 60x75 ft.; 2 stories; church auditorium and Sunday-school rooms; brick and stone; slate roof; floor of mill construction; electric and gas lighting; heating and glazing reserved; bids due May 18; bidders are L. Eyringer & Son, 800 S. 3d St.; P. J. Cushman, 219 St. Paul St.; Henry S. Ripple, 7 Clay St.; G. Walter Tovey, Eutaw and McCulloh Sts.; Cowan Bldg. Co., 106 W. Madison St.; B. F. Bennett Bldg. Co., 123 S. Howard St.; C. C. Watts, 113 W. Hamilton St.; John Hughes, Jr., 104 E. Saratoga St.; J. L. Robinson Construction Co., Knickerbocker Bldg.; A. Knell, Jr., 215 St. Paul St.; L. Schoenlein & Son, 2217 E. Baltimore St.; all of Baltimore. (Noted in November.)

Md., Cumberland.—Trinity Methodist Episcopal Church South, Rev. Harry V. Wheeler, pastor, will erect building.

Mo., Houstonia.—Christian Church has plans by S. E. Edwards, 559 Sheldley Bldg., Kansas City, Mo., for building; 51x68 ft.; ordinary construction; shingle roof; 2 furnaces; cement sidewalk; wood floor; cost about \$8000; Archt. taking bids.

Mo., Kansas City.—Jewish Congregation, Tifereth Sford, Rev. Morris Brown, rabbi, will erect synagogue.

Mo., Kansas City.—Hyde Park Methodist Church will erect \$85,000 building at Broadway and Valentine Rd.; Rev. Saml. Blair, pastor.

Mo., Mt. Vernon.—Christian Church will build 68x54-ft. 2-story structure; H. H. Hohenschild, Archt., Navarre Bldg., St. Louis.

Mo., St. Joseph.—Savannah Avenue Baptist Church, Geo. P. Dunn, Chrmn. Building Comm., has plans by Trunk & Gordon, Donnell Court, St. Joseph, for building; 70x100 ft.; ordinary construction; tin roof; wood and cement floor; steam heat and mechanical ventilating; electric and gas light; vault lights; cost about \$25,000; construction to begin June 1.

N. C., Rosemary.—Christian Church has plans by Benton & Moore, Wilson, N. C., for building; brick, stone and terra-cotta; cost about \$20,000.

N. C., Salisbury.—First Methodist Church, Rev. John W. Moore, pastor, 215 S. Church St., is considering erection of building; about 65x130 ft.; ordinary construction; slate roof; oak flooring; electric lighting; heating not decided; architect not selected; cost probably \$35,000 to \$45,000; if structure is erected, will let contract to A. R. Lazebny, W. Council St., Salisbury.

S. C., Charleston.—Star Gospel Mission, J. D. Cappelman, Chrmn. Bldg. Com., 600 King St., is having plans prepared by D. B. Hyer, Charleston, for building; about 50x165 ft.; ordinary construction; hot-water heat; city lighting; roofing and flooring not decided; cost \$20,000 to \$25,000. Address Mr. Cappelman.

Tenn., Chattanooga.—Zion A. M. E. Church, Rev. C. L. Byers, pastor, has plans by W. A. Rayfield & Co., P. O. Box 649, Birmingham, Ala., for building at 12 People St.; 50x90 ft.; ordinary construction; roofing supplied by A. H. White Roofing Co., New Orleans; hot-air heat \$500; electric light; cost \$12,000; construction to begin in June.

Tex., Dallas.—Oak Cliff Christian Church plans to erect \$50,000 building. Address The Pastor.

Tex., Fort Worth.—Rosen Heights Christian Church is having plans prepared by Van Slyke & Woodruff, Fort Worth and Oklahoma City, for building; cost about \$14,000; Rev. Jas. Andrews Crain, pastor.

Tex., Jacksonville.—Methodist Church has plans by S. W. Ray, Jacksonville, for parsonage.

Tex., Miles.—Methodist Church will erect \$3000 Sunday-school. Address The Pastor.

Tex., Mount Pleasant.—Methodist Church will erect \$20,000 building. Address The Pastor.

Tex., Van Alstyne.—Methodist Church will probably have plans prepared by Sparger & Peters, Bonham, Tex., for building.

Va., Staunton.—Central M. E. Church South, Rev. H. H. Sherman, pastor, 16

Church St., is having plans prepared by T. J. Collins & Son, Staunton, to remodel and enlarge Sunday-school portion of building; ordinary mill construction; slate roof; pine floors; gas and electric lighting; cost \$5000; to begin construction about June 15.

W. Va., Charleston.—Church, Rev. T. H. Rinford, pastor, is erecting building; 80x102 ft.; ordinary construction; brick walls; composition roof; wood floors; steam heat; electric wiring; cost \$30,000; Jas. L. Montgomery, Archt., Charleston; day labor; construction progressing.

W. Va., Fairmont.—First Presbyterian Church plans to erect building. Address The Pastor.

## CITY AND COUNTY

Ala., Huntsville.—Library.—City has plans by Edw. L. Love, Huntsville, for library on Madison St.; tin roof; cost about \$12,000; contract let May 25; address J. D. Humphrey, Mayor, Huntsville. (Noted in April.)

Fla., Winter Park.—City Hall.—City, W. C. Temple, Mayor, voted \$2000 bonds for city hall and jail and \$10,000 for paving.

Fla., Jacksonville.—Administration.—Port Commrs., F. W. Bruce, Ch. Engr., receives bids until May 17 for material and erection of office and administration building on Talleyrand Ave. (Lately noted.)

Ky., Louisville.—Engine-house.—City has plans by W. J. O'Sullivan, Building Dept., City Hall, for fire-engine house at Bards-town Rd. and Maryland Ave.; 36x120 ft.; ordinary construction; Ludowici tile and tin roof; vitrified brick sidewalk; bids opened; Alt Building Co., Louisville, is lowest bidder for construction at \$11,330; Bland Electric Co., Louisville, lowest for electric work at \$510; L. Koellner, Louisville, for plumbing at \$390. (Lately noted.)

La., New Orleans.—Office.—Sewerage and Water Boards plan to erect 5-story office building at Lafayette and Carondelet Sts.; garage in basement.

Md., Baltimore.—Police Station.—Board of Awards receives bids through Richard Gwynn, City Register, City Hall, until May 19 for alterations and repairs to Southwestern Police Station, Calhoun and Pratt Sts.; plans and specifications at office of Building Inspector, City Hall.

Md., Baltimore.—Police Station.—Board of Awards, City Hall, receives bids through Richard Gwynn, City Register, City Hall, until May 19 for alterations to Northeastern Police Station, Ashland Ave. east of Rutland Ave.; plans and specifications at office of Building Inspector, City Hall.

Miss., Pass Christian.—City Hall.—City is reported to issue \$20,000 bonds to erect city hall, enlarge waterworks and improve sidewalks. Address The Mayor.

Mo., New Madrid.—Jail.—New Madrid county receives bids until May 22 to erect courthouse and jail. (See Courthouses.)

Mo., St. Louis.—Zoo.—Zoological Society (City Government) contemplates erecting zoo buildings; cost about \$15,000; Clinton H. Flak, Ch. Engr. of Construction. (Lately noted.)

N. C., Danbury.—Home.—Stokes County Commrs. will erect home; John W. Gann and Isaac D. Barr, Com.

S. C., Camden.—Library.—City, W. R. Zemp, Chrmn. Building Com., opens bids May 21 to erect library; 20x54 ft.; 1 story; ordinary construction; slate roof; wood floors; cost \$5000; furnace \$250; Wilson & Sompayrac, Archts., Columbia, S. C. Address Mr. Zemp. (Lately noted.)

Tex., San Antonio.—Home.—Bexar county adopted plans by C. V. Scutter and Adams & Adams, San Antonio, for Bexar County Juvenile Home; will receive bids until May 21.

Tex., Temple.—Fire Stations, etc.—City voted June 1 on \$40,000 bonds to erect 2 fire stations, install new equipment and electric fire-alarm system. Address The Mayor. (Lately noted as to vote June 3.)

Tex., West.—City Hall and Jail.—City is reported considering erecting city hall and jail. Address The Mayor.

Va., Richmond.—Park House.—Jno. E. Butler, Building Inspector, receives bids until May 19 to erect park house in Chimborazo Park; plans and specifications at office of Carneal & Johnston, Archts., 707 Chamber of Commerce Bldg., Richmond.

Va., Richmond.—City Hall.—Common Council approved design of Carneal & Johnston, Richmond, for municipal building and appropriated \$3500 to prepare working drawings; 248x138 ft.; auditorium to seat 400; fireproof; steel frame; reinforced concrete

slabs; electric elevator; probably Virginia granite construction; cost \$500,000 without mechanical equipment; Alfred C. Bosson, Consult. Archt., 365 Fifth Ave., New York. (Noted in December.)

### COURTHOUSES

Ga., Lafayette.—Walker county votes July 7 on \$150,000 bonds, to include \$75,000 to erect courthouse. Address County Commrs. (Lately noted.)

Mo., New Madrid.—New Madrid county receives bids through Clymer & Drischler, Archts., Wainwright Bldg., St. Louis, until May 22 to erect courthouse and jail. (Previously noted.)

### DWELLINGS

Ala., Selma.—W. T. Taylor will erect residence to replace structure burned at loss of \$6000.

Ark., Little Rock.—L. D. Murphy will erect 2-story brick-veneer residence at 2410 Broadway; cost \$8000.

D. C., Washington.—Chas. L. Tankersley, 1836 Monroe St., has plans by W. E. Howser, 37 New York Ave. N. E., for 4 dwellings at 18th and Kenyon Sts.; 6 and 8 rooms; mill construction; tin roof; pine and oak floors; cost about \$13,000; construction by owner. (Lately noted.)

D. C., Washington.—F. R. Gordon planned and will erect 2 dwellings at 5507 9 33d St. N. W.; 2 stories; 28x32 ft.; hollow tile construction; slate roof; hot-water heat; electric light; cost \$9400; will also erect dwelling at 3935 Morrison St. N. W.; 33x48 ft.; same materials; cost \$5500.

D. C., Washington.—H. G. Smithy, 721 13th St. N. W., has plans by W. R. Talbott, 1314 F St. N. W., Washington, for 4 dwellings at 4911 17 13th St. N. W.; 2 stories; 25.6x39 ft.; hollow tile construction; slate roof; hot-water heat; electric light; cost \$18,400; also build dwelling at 4909 13th St. N. W.; 27.6x37 ft.; same materials; cost \$4000.

D. C., Washington.—L. T. Mann has plans by Geo. O. Totten, Jr., 806 17th St. N. W., Washington, for adding to and remodeling dwelling at 1333 16th St. N. W., and erecting garage; stucco; thorough interior and exterior remodeling; hot-water heat; electric light; plumbing; bids opened May 12.

D. C., Washington.—Jas. C. Marsh, 204 Southern Bldg., has plans by W. R. Talbott, 1314 F St. N. W., Washington, for dwelling at 1217 Dogwood St.; 2 stories; 27x33 ft.; frame; slate roof; hot-water heat; electric light; cost \$4500; construction by owner.

D. C., Washington.—Thrift Bldg. Co., Union Trust Bldg., has plans by Geo. T. Santeneyers, 1406 S St., Washington, for 4 dwellings at 1345-51 Franklin St. N. E.; 2 stories; 20x22 ft.; frame; slate roof; hot-water heat; electric light; cost \$10,000; construction by owner.

D. C., Washington.—Wm. K. Hill has plans by Hunter & Bell, Southern Bldg., Washington, for erecting 2 dwellings at 3312 Holmden Pl. and remodeling dwelling at 3310 Holmden Pl.; brick and stone; slag roof; hot-water heat; electric light; cost about \$12,000; bids due May 21.

Fla., Jacksonville.—Frank D. Bisbee will erect residence; 2 stories; hollow tile and stucco; composition shingles; tile porches and bathrooms, using Denison interlocking tile, manufactured by Gamble & Stockton Co., Jacksonville; also erect garage.

Fla., Sarasota.—John Ringling will erect \$35,000 residence; H. N. Hall, Archt., Sarasota.

Fla., St. Augustine.—M. G. Collin will erect residence to cost \$3000 to \$4000; hot and cold water system operated by windmill power; electric lights supplied by small dynamo; stone block fence along side.

Fla., Tampa.—Harry S. Reynolds is erecting \$5000 residence at Argyle and Langside Pl.

Fla., Tampa.—W. B. Harvard is erecting 1½-story residence; cost \$4200.

Ga., Atlanta.—Guy Harper will erect 1-story frame dwelling on Euclid Ave. near Moreland Ave.; 6 rooms; cost \$3250.

Ga., Atlanta.—Mrs. L. M. Nichols will erect 5-room dwelling at 260 E. 14th St.; cost \$3500; day labor.

Ga., Atlanta.—John B. Bowen will erect brick-veneer dwelling on Lucile Ave.; 6 rooms; cost \$3500.

Ga., Atlanta.—Mrs. Elizabeth H. Hinman will remodel residence at 126 Elizabeth St., Inman Park; cost \$4500.

Ga., East Lake (P. O. at Atlanta).—W. W. De Lany planned and will erect dwelling at Fair and Daniel Sts.; ordinary construction;

California red wood shingle roof; hardwood floors; hot-air heat; electric light; cost about \$4000; construction begun.

Ga., Macon.—People's Bank & Trust Co. is erecting 6-room bungalow on Crescent Circle for Geo. G. Nuttings; will also erect 9-room brick bungalow on Buford Pl. for R. Douglas Feagin.

Ga., Savannah.—Mrs. Cammarella A. Matthews will erect residence.

Ky., Lexington.—R. S. Webb, Jr., will erect residence in Bassett Court; cost \$3500.

Ky., Louisville.—R. W. Wheeler will erect brick-veneer dwelling at 2406 Eastern Parkway; cost \$4000.

Ky., Louisville.—Hettie Burton will erect brick-veneer dwelling at 1903 Ivanhoe Court; cost \$3500.

Ky., Louisville.—Ben Fenz will erect 3 brick dwellings at 1039-43 Jackson St.; cost \$5400.

Ky., Mt. Sterling.—Mrs. E. E. Tharp will erect residence on High St.

La., Bogalusa.—Mrs. A. S. Anderson will erect residence.

La., Bogalusa.—Mrs. C. W. Walters will erect residence.

La., New Orleans.—J. J. Conway will erect bungalow at Suburban Acres.

La., New Orleans.—Wm. Daley has plans by W. R. Burk, New Orleans, for residence; 2 stories; slate roof.

La., New Orleans.—A. Norcross has plans for 2-story stucco residence; slate roof.

La., New Orleans.—Mrs. Ida B. Davis will erect frame residence; slate roof; A. J. Nelson, Archt., New Orleans.

La., New Orleans.—Mr. Miller has plans by P. B. Seybold, New Orleans, for 2-story residence.

La., New Orleans.—L. Mustasi will erect business building and residence.

La., New Orleans.—Mrs. Julia Bennett will erect frame slate-roof residence; A. J. Nelson, Archt., New Orleans.

Md., Baltimore.—Francis E. Yewell, 2845 N. Calvert St., will build 3-story dwelling; brick construction; electric fixtures, etc.; cost \$5000; John R. Forsythe, Archt., 232 St. Paul St., Baltimore.

Md., Baltimore.—J. L. White Realty Co., Potomac and McEldeery Sts., has plans by C. Broning for 14 dwellings at 2747-59 and 2758-70 Fenwick Ave.; 2 stories; 14x48 ft.; brick; tin roof; hot-air heat; cost \$14,000; construction by owner.

Md., Baltimore.—Noel H. Matthews has plans by Edw. L. Palmer, Jr., 408 Roland Ave., Roland Park, Md., for dwelling in Guilford; 39x26 ft.; 2½ stories; frame; stucco; slate roof; hot-water heat; electric light; bids due May 11. (Noted in Apr.)

Md., Hillis mere, Anne Arundel County (not a postoffice).—Martin H. Smith has plans by Cyrus Bissler, New York, for dwelling; 2½ stories; 56x100 ft., with wings 27x35 and 22x50 ft.; frame; stucco; bids being taken; Consolidated Engineering Co., 343 Calvert Bldg., Baltimore, bidding.

Md., Roland Park.—Christopher A. Watterscheidt is having plans prepared by Edw. L. Palmer 408 Roland Ave., Roland Park, for dwelling; 2½ stories; brick.

Md., Roland Park.—Harry B. Davis is having plans prepared by Edw. L. Palmer, 408 Roland Ave., Roland Park, for dwelling; 2½ stories; brick; cost about \$15,000.

Md., Silver Spring.—R. C. Boothe, Washington, D. C., will build \$4000 dwelling; 40x39 ft.; 2 stories; frame siding; shingle roof; N. T. Haller, Archt., 700 10th St. N. W., Washington, D. C.

Mo., Kansas City.—Irving H. Smith, Secy. of Smith-McCord-Townsend Dry Goods Co., will erect residence on W. 55th St.

Mo., Kansas City.—Dr. Samuel Ayres will erect residence at 61st and McGee Sts., to cost \$13,000.

Mo., Kirksville.—B. H. Stephenson will erect residence.

Mo., Kirksville.—G. V. Lehr will erect 9-room residence.

Mo., Kirksville.—F. O. Kloss, 409 E. Harrison St., will erect residence.

Mo., St. Louis.—F. Wehrle T. & C. Co. will erect three 2-story dwellings at 925-29-31 King's Highway; cost \$13,500; construction by owner.

Mo., St. Louis.—James W. Scudder, Prest. of Scudder-Gale Grocer Co., will erect residence in New County Club Subdivision.

Mo., St. Louis.—Bertha Blust will erect bungalows on six lots in Kinloch Park.

Mo., St. Louis.—W. K. Stanard is erecting residence in Bartemoor; 3 stories; colonial style.

Mo., St. Louis.—Jackson Johnson will alter dwelling at 25 Portland Pl.; interior finish, etc.; bidders are Hall-Mackay Construction Co., Chemical Bldg.; Remmers Building & Construction Co., 805 Cass Ave.; W. M. Sutherland Building & Construction Co., Syndicate Trust Bldg.; Hoffman Construction Co., Globe-Democrat Bldg.; A. H. Haeseler Building & Construction Co., Wainwright Bldg., all of St. Louis; bids received until May 11 at office of Mauran, Russell & Crowell, Archts., 1629 Chemical Bldg., St. Louis.

N. C., Durham.—Mrs. Lee Battle will erect residence.

N. C., Greenville.—A. M. Moseley has plans by Benton & Moore, Wilson, N. C., for dwelling; brick veneer; cost about \$3000; bids opened May 11.

N. C., Greenville.—Albion Dunn has plans by Benton & Moore, Wilson, N. C., for dwelling; brick veneer; cost about \$8000; bids opened May 11.

N. C., Hickory.—J. L. Kiser has plans by Q. E. Herman, Hickory, for dwelling; frame; metal roof; hot-water heat; electric light; cost about \$4500.

N. C., Salisbury.—F. A. Rankin has plans by J. E. Craine for 3 dwellings on West Connel St.; one, 9 rooms; two, 5 rooms each; bungalow type; mill construction; shingle roof; warm-air heat; electric light; cost \$8000; address owner. (Lately noted.)

Okla., Oklahoma City.—Aurelius-Swanson Co. will erect 25 frame dwellings during year.

Okla., Okmulgee.—Bert C. Overton, Okmulgee, prepared plans for several dwellings.

Okla., Tulsa.—J. W. Dodge will erect 2-story frame residence on N. Denver St.; 26x28 ft.; cost \$3000.

Okla., Tulsa.—J. E. Rogers will erect 2-story frame residence, 32x42 ft., at 1615 S. Denver St., and 1-story residence, 28x32 ft., at South Lawton; cost \$4000.

Okla., Woodward.—G. W. Harrison will erect 2-story residence.

Tenn., Knoxville.—Alex. McMillan will erect 4 bungalows on Cumberland Ave.; cost \$8800.

Tenn., Memphis.—J. M. Harris will erect two 1-story five-room residences at 686 and 690 Rayburn Blvd.; cost \$4000.

Tenn., Memphis.—Hurst Trust Co. will erect 6 bungalows on N. Garland St.; hot-air heat; 6 and 7 rooms; cost about \$4000 each.

Tenn., Nashville.—Lou Lebeck will erect stucco bungalow in West Side Park; cost \$12,000.

Tex., Athens.—C. A. Spencer is having plans prepared by Walter G. Shadday, Athens, for dwelling; 2 stories; 34x53 ft.; frame; metal roof; cost about \$3000.

Tex., Athens.—Edgar Henry has plans by Walter G. Shadday, Athens, for dwelling; 2 stories; 44x56 ft.; frame; metal roof; cost about \$4000; bids due June 1.

Tex., Childress.—H. Hamill will erect residence to cost about \$3000.

Tex., Dallas.—J. Henry Bennett will erect California type residence; cost about \$10,500.

Tex., Dallas.—J. M. Bayless will erect two-story nine-room frame residence at 5802 Tremont St.; cost \$3750.

Tex., Dallas.—W. A. Thomas will erect two-story frame residence; 8 rooms; cost \$3000.

Tex., Dallas.—Edgar Hurst will erect 5-room brick-veneer cottage at 2417 Forest St.; cost \$4000.

Tex., Dallas.—D. G. Dunlap will erect 2-story 8-room tile residence at 2411 N. Pearl St.; cost \$5000.

Tex., Dallas.—M. T. Webb and L. A. Adeau plan to erect four 2-story dwellings, each to contain 8 rooms; construction begins at once.

Tex., Galveston.—W. G. Tabb will erect 8 bungalows on Avenue Q½.

Tex., Houston.—S. M. McAshan will erect 2-story residence on Cortland Ave.; cost \$7500.

Tex., Houston.—Wm. Angerhoefer will erect 5-room residence on Harrisburg Rd.; cost \$4500.

Tex., San Antonio.—Dr. T. Y. Hull will erect 2-story dwelling on McCullough Ave.; cost \$2000.

Tex., Sulphur Springs.—W. A. Rayfield & Co., Box 649, Birmingham, Ala., prepared plans to erect dwellings for Mrs. Ida Brinker and H. Carroll; 30x50 ft. and 30x60 ft.; to cost \$1500 and \$2000, respectively; ordinary construction; composition roof; electric lighting; fireplaces. Address Archts.

Tex., Victoria.—R. H. Welder is having plans prepared for 2-story brick residence; cost about \$20,000.

Va., Petersburg.—J. R. Bell, care Dixie Peanut Co., is having plans prepared by S. Daley Craig, Petersburg, to erect dwelling; 32x37 ft.; ordinary construction; wood floors; electric lighting; cost \$4500; hot-water heat, \$400; opens bids about June 1. Address owner.

Va., Richmond.—Roland Park Corporation will erect 2-story frame dwelling on Main Ave.; cost \$4500.

Va., Richmond.—U. Baldacci will erect store and dwelling. (See Stores.)

Va., Richmond.—J. J. Crutchfield is erecting brick bungalow at Forest hill; approximately \$10,000.

Va., Richmond.—P. J. Beattie will erect four 2-story brick dwellings on Stuart Ave.; cost \$5000.

W. Va., Raleigh.—H. T. Calfee & Son will erect residence and undertaking establishment. (See Miscellaneous.)

### GOVERNMENT AND STATE

D. C., Washington.—Office Building.—Treasury Dept. prepared plans for office building for Dept. of Interior at E. F. 18th and 19th Sts.; 7 stories and basement, 400x57 ft., with 3 wings 337x57 ft. each; fireproof, brick, steel frame; tile roof; concrete floor; steam heat; electric light; 11 electric elevators; cost about \$2,500,000; plans ready June 1; bids due June 13.

Fla., Tampa Bay.—Quarantine Station.—Treasury Dept., Jas. A. Wetmore, Acting Supervising Archt., Washington, D. C., receives bids until June 14 to construct, complete, including mechanical equipment, attendants' quarters, disinfecting shed, oil-house, wharf, etc., for quarantine station; buildings to be 1 story; frame; total ground area, 7600 sq. ft.; plans and specifications obtainable from custodian at site or office of Acting Supervising Archt.

Md., Riverdale.—Postoffice.—O. Klinger has plans by F. H. Brooke, Telegraph Bldg., Washington, D. C., for postoffice and store building; 45x70 ft.; 14-ft. ceiling and mansard roof; 1 story; hollow-tile construction; fireproof; asbestos cement floor; heating reserved; electric lights; cost \$7500; bids in; address owner; taking sub-bids; construction to begin about June 15; lately noted. (See Machinery Wanted.)

N. C., Fort Caswell.—Storehouse.—Constructing Quartermaster will erect militia storehouse; bids until May 2.

Okla., McAlester.—Penitentiary.—Legislature appropriated \$135,000 for improvements to penitentiary, including \$100,000 for factories, etc., \$25,000 to complete buildings under construction, and \$10,000 for negro reformatory, latter to be provided first; Robt. L. Williams, Gov., Guthrie, Okla.

Tex., Cuero.—Postoffice.—Treasury Dept., Jas. A. Wetmore, Acting Supervising Archt., Washington, D. C., opens bids June 21 to erect complete, including mechanical equipment, interior lighting fixtures and approaches, postoffice building; drawings and specifications obtainable from custodian at site or Acting Supervising Archt.

### HOSPITALS, SANITARIUMS, ETC.

Fla., Tampa.—Sisters of the Holy Family will erect sanitarium, etc. (See Miscellaneous.)

Ga., Fort Oglethorpe.—Constructing Quartermaster receives bids until May 23 to erect hospital annex.

Okla., Okene.—Dr. H. Blender will erect 32x32-ft. 1-story hospital; cost \$4000; R. W. Shaw, Archt., Enid, Okla.

Tex., Corsicana.—Dr. F. B. Crutcher, San Antonio, is reported to erect sanitarium.

Va., Alexandria.—Alexandria Emergency Hospital has tentative plans by Waddy B. Wood, 816 Connecticut Ave., Washington, for buildings to cost about \$50,000.

Va., Clifton Forge.—Chesapeake & Ohio R. R. receives bids until May 17 through Dr. W. T. Oppenheimer, Ch. Surgeon, 1304 First National Bank Bldg., Richmond, Va., to erect hospital; 3 stories; cost \$30,000; plans and specifications at office of Chas. M. Robinson, Archt., 508-12 Times-Dispatch Bldg., Richmond, Va.

Va., Newport News.—J. T. Buxton has plans by McGee & Williams, Newport News, for private sanitarium addition on Cypress Ave.; 26x71 ft.; ordinary construction; gravel roof; rift pine floors; cost about



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\$20,000; steam heat, \$1500; electric light, \$400; bids opened May 7. (Lately noted.)

Va., Richmond.—Dr. Beverly R. Tucker acquired property at 212 Franklin St. and will remodel and enlarge for sanatorium.

W. Va., Parkersburg.—Wood county, C. E. Pahl, Clerk, will build infirmary; 80x59 ft.; 2 stories and basement; cost \$22,000; Theo. Sansbury, Archt., Parkersburg.

W. Va., Parkersburg.—City Hospital con- templates \$75,000 expenditure for addition; A. C. Murock, Mayor.

### HOTELS

Fla., St. Petersburg.—R. G. Gregg and others will let general contract about July 1 to erect hotel; ordinary construction; stucco finish; 4 stories; L-shaped; about 70x140 ft.; Ferdon & Feltham, Archts., St. Petersburg. (Noted in April as having let contract for foundation and to let main contract May 1.)

Ky., Dawson Springs.—H. W. Russell post- opened erection of hotel until fall. (Previously noted.)

La., Eunice.—P. E. Hammons has plans by C. A. Logan, Beaumont, Tex., for hotel; 2 stories; brick; cost about \$25,000.

Md., Frederick.—Dagmar Hotel is reported to erect 2 additional stories.

Mo., Kansas City.—Williams Realty Co. is reported to erect 11-story hotel at 9th and Main Sts.

N. C., Lumberton.—H. H. Anderson will erect hotel at Chestnut and 2d Sts.; 42x109 ft.; brick; Carey flexible cement roofing; 1st floor composition, 2d and 3d wood; steam heat; electric elevator; day labor and sub- contracts; cost \$30,000; construction begun; address J. M. Russell, Archt., Lumberton.

Okla., Boynton.—Bert C. Overton, Okmul- gee, Okla., prepared plans for hotel.

Tex., Searne.—Aldine Hotel will erect 2-story 17-room frame building.

Tex., Taylor.—O. G. Kuller has plans for hotel; 4 stories and basement; 65 rooms; fireproof; steam heat; laundry; foundation to support 2 additional stories; cost about \$75,000.

### MISCELLANEOUS

Ark., Little Rock—Stables.—Wells-Fargo & Co. Express, 51 Broadway, New York, will erect 2-story brick stable at 615 Water St.; cost \$9000.

Ark., Little Rock—Amusement.—Arcade Amusement Co. inceptd. with \$50,000 capital stock; will expend \$25,000 to remodel portion of City Market and Arcade Building for swimming pool, skating rink, balconies and roof garden.

Fla., Miami—Clubhouse.—Brittania Club, Geo. A. Howard, Chrmn. Building Comm., will erect \$10,000 clubhouse.

Fla., Miami—Clubhouse.—Fifteen State Club plans erection of clubhouse; A. E. Sharp, A. H. Thompson and E. W. Knott are interested.

Fla., St. Petersburg—Terminal Building, etc.—J. Franklin Meehan will not erect terminal at Jungle Park as previously re- ported.

Fla., Tampa—Orphanage.—Sisters of the Holy Family, Rev. Maria Cataline de Jesus, Mother Superior, 1891 Central Ave., acquired 2-acre site and will, it is reported, erect school, orphanage, sanitarium, etc., at initial cost of \$50,000.

Ga., Atlanta—Fair.—Southeastern Fair Assn. accepted plans by Edwards & Say- ward, Atlanta, for first series of buildings at Lakewood; will soon let contract for grading and removing 11,000 yards of earth.

Ga., Macon.—Auditorium.—B. T. Kemper will erect building with auditorium on sec- ond floor. (See Stores.)

La., Donaldsonville.—Fair.—South Louisi- ana Fair Assn. will erect building for cattle and educational building.

Okla., Chickasha.—Clubhouse.—Chickasha Country Club has plans by P. G. Spinning, Chickasha, for clubhouse; 1 story; 60x50 ft.; frame; hardwood floors; cost about \$4000; bids opened May 5. (Lately noted.)

Okla., Oklahoma City—Live Stock Ex- change.—Live Stock Exchange will rebuild structure at Oklahoma National Stock Yards, noted damaged by fire at loss of \$75,000.

Tex., Dallas—Home.—Texas Baptist Mem- orial Assn. contemplates erecting home for nurses and wings to main building; fire- proof; concrete and marble construction; cost about \$300,000; ultimate expenditure \$500,000; details not decided; present plans preliminary; J. B. Gambrell, Dallas, in- terested.

Tex., Houston—Armory.—Houston Cavalry,

Troop A, Texas National Guard, plans to erect armory.

Tex., San Antonio—Studio.—Excel Foto Play Co. plans to erect moving-picture stu- dio; cost about \$25,000.

Tex., Waco—Clubhouse.—Waco Maenner- chor Society has plans by E. H. Reed, Waco, for clubhouse; 60x100 ft.; cost \$10,000. (Late- ly noted.)

W. Va., Raleigh—Undertaking Establish- ment.—H. T. Calfee & Son will erect under- taking establishment; 3 stories; brick; 59x59 ft.; upper floor for residence.

### RAILWAY STATIONS, SHEDS, ETC

Ark., Morrilton.—Missouri-Pacific Ry. Sys- tem, J. R. Stephens, Ch. Engr., St. Louis, is reported to erect depot.

Fla., St. Augustine.—St. Johns Electric Co. will erect car barn; cost \$7000.

Ga., Perry.—Hawkinsville & Western R. R., A. S. Ware, Gen. Mgr., Hawkinsville, Ga., is reported to erect freight and passenger depot.

Tex., Galveston.—Gulf, Colorado & Santa Fe R. R., P. Merritt, Ch. Engr., included in budget for year \$48,100 for constructing sta- tions and office building along line.

### SCHOOLS

Ala., Irondale.—Town is considering elec- tion on \$20,000 bonds to erect school; H. C. Gore, Mayor.

Ark., Ashdown.—School Board, Seth C. Reynolds, Secy., lets contract May 20 to erect school; plans at office of Mr. Reynolds and V. B. Van Dyke, Archt., Ashdown; may let contract for building and plumbing and heating to one contractor, or contracts may be let separately. (Noted in Apr.)

Ark., Forrest City.—School Board has plans by W. C. Lester, Scimitar Bldg., Mem- phis, Tenn., for school; 2 stories and base- ment; brick; terra-cotta trimmings; gravel roof; cost \$40,000; bids opened May 17.

Ark., Garner.—School Trustees open bids May 25 to erect school building; 2 stories; frame; 30x50 ft.; ordinary construction; shingle roof; concrete sidewalks; cost \$2500 without mechanical equipment; Holtzman & Blount, Archts., 828 Southern Trust Bldg., Little Rock. Address J. R. Williams, Secy., Garner. (Noted in April.)

D. C., Washington.—Secretary Board of Commrs., 509 Municipal Bldg., receives bids until May 14 for carpenter work, mill work, electric work and miscellaneous work at Western High School, No. 117, 35th and R Sts. N. W.; specifications at office Chief Clerk, Engineer Dept., 427 Municipal Bldg., Washington; Snowden Ashford, Municipal Archt., Municipal Bldg., Washington. (Con- tract previously noted let to erect steel and iron work, concrete footings, floor slabs, etc.)

Fla., Ankona.—Special Tax School Dist. No. 14 sold \$25,000 bonds for school building. Geo. A. Saeger, Chrmn., Board of Public Instruction, Fort Pierce, Fla.

Fla., New Smyrna.—Special Tax Dist. No. 8 votes June 15 on \$42,000 bonds for schools. Address Dist. School Trustees. (Lately noted.)

Fla., Palmetto.—School Dist. contemplates bond election on \$50,000; will expend about \$40,000 to erect and equip school building; C. E. Haley, Chrmn. School Board. (Lately noted.)

Fla., Seabreeze.—Special Tax School Dist. No. 41 votes June 15 on \$50,000 bonds for schools. Address Dist. School Trustees.

Fla., St. Augustine.—State School for Deaf and Blind, A. H. Walker, Prest., has \$30,000 appropriation; plans to expend \$10,000 to erect hospital building and \$20,000 for build- ing for negro students.

Fla., St. Petersburg.—Board of Public In- struction ordered election for June 1 on \$105,000 bonds for schools; approved plans by Henry H. Dupont & Co., St. Petersburg, for high school; 2 stories and basement; 150x150 ft.; cost \$90,000. (Lately noted.)

Fla., Tampa.—Sisters of the Holy Family will erect school, etc. (See Miscellaneous.)

Fla., Winter Haven.—School Board will erect brick high school.

Ga., Stone Mountain.—City votes June 5 on \$12,000 bonds for schools and water-works. Address The Mayor.

Ga., Atlanta.—Building Com., Board of Education, Geo. F. Eubanks, Chrmn., receives bids until May 14 to erect school as follows: Eight-room structure on Metropolitan Ave.; 4-room on Milton Ave.; 4-room on Marietta St.; 6-room on Lucile Ave.; bids not to in- clude heating; plans and specifications for Lucile Ave. school at office of Fritz Wage-

ner, Archt., Fourth National Bank Bldg., Atlanta; for other buildings at office of Battle & Barill, Grant Bldg., Atlanta. (Lately noted.)

Ga., East Lake, P. O. at Atlanta.—Town, Howard Geldert, Clerk, voted \$8000 bonds to purchase site and erect school. (Previously noted.)

Ga., Menlo.—School Board, J. R. Wyatt, Secy., voted \$12,000 bonds to buy and improve brick school building. (Lately noted to erect building.)

Ga., Tallapoosa.—Board of Education is considering \$25,000 bond issue to include \$12,500 to erect school, \$8000 for heating and sewerage, \$2500 for seats for classrooms and auditorium, \$500 for stage fixtures, \$500 moving old building and erecting colored school, \$1000 repairing building.

Ky., Anchorage.—School Board, H. O. Hausgen, Prest., has plans by Ward & Glos- sop, Louisville, Ky., and is erecting Model School; 1 story; Spanish mission style; ex- terior of stucco on hollow tile walls; red tile roof; laboratory, manual training, domestic science, gymnasium equipment, etc.; audi- torium to seat 400.

Ky., Fort Thomas.—City plans to issue \$22,000 school building and fire equipment bonds. Address The Mayor.

Ky., St. Matthews.—Holy Trinity R. C. Church will build parochial school and church. (See Churches.)

La., Scanlon.—Tangipahoa Parish School Board, Amite, La., authorized \$5000 bond issue to erect consolidated school near Scan- lon, in Fifth Ward.

Md., Colgate.—County Commrs. will erect addition to school. (See Schools, Md., Govans.)

Md., Essex (not a postoffice).—County Commrs. will erect building. (See Schools, Md., Govans.)

Md., Gardenville.—County Commrs. will make addition to school. (See Schools, Md., Govans.)

Md., Govans.—Baltimore County Commrs., Towson, Md., will erect school at Govans, building at Essex, 4-room addition to Gar- rett Heights school, Hamilton; 4-room addi- tion to Gardenville school, frame addition to school at Colgate.

Md., Hamilton.—County Commrs. will make addition to school. (See Schools, Md., Govans.)

Mo., Carthage.—Carthage School Dist. voted \$10,000 bonds to erect school. Address Dist. School Trustees.

Mo., Kansas City.—Directors of School Dist. of Kansas City receive bids until May 17 to erect addition to Greenwood School at 27th St. and Cleveland Ave.; plans and spec- ifications at office of Chas. A. Smith, Archt., 602 Finance Bldg., Kansas City.

Mo., Webb City.—Webb City School Dist. voted \$10,000 West Side school bonds. Ad- dress Dist. School Trustees.

N. C., Aulander.—Farm Life School has plans by Benton & Moore, Wilson, N. C., for building; ordinary construction; brick and stone; steam heat; cost about \$25,000; bids opened May 15.

N. C., Barnardsville.—Barnardsville School Dist. votes May 18 on \$6000 bonds for erec- tion of high school. (Noted in April.)

N. C., Clayton.—Clayton Graded School Dist. votes July 10 on \$10,000 bonds for schools; J. D. Barbour, Secy.

N. C., Macon.—Macon High School Dist. votes June 12 on \$10,000 bonds to erect high school; P. M. Stallings, Chrmn. County Commrs.

N. C., Norlina.—Norlina Special Tax Dist. votes June 12 on \$12,000 bonds to erect brick school. Address Dist. School Trustees.

N. C., Spencer.—City, C. G. Thelling, Mayor, voted \$5000 bonds to complete and equip school. (Noted in Apr.)

Okla., Chillico.—Dept. of Interior, Office of Indian Affairs, Cato Sells, Comr., Wash- ington, D. C., receives bids until May 20 to erect addition to stone school; metal shingle roof; maple floor; steam heat; electric light; cost about \$12,000; plans and specifications at office of Daily Oklahoman, Oklahoma City; United States warehouses at Chicago, St. Louis and Omaha, Neb., and office of Supt. of Schools at Chillico; further information from Mr. Sells. (Lately noted.)

Okla., Enid.—Board of Education is having plans prepared for 8-room school near the University.

Okla., Lawton.—Katherine Cornish, Secy. Antwerp Township School Dist., receives bids until May 15 to erect school.

Okla., Pryor.—City plans to issue \$12,000

bonds to erect high school. Address The Mayor.

S. C., Fuquay Springs.—Fuquay Springs School Dist. votes May 15 on \$25,000 bonds to erect school. Address Dist. School Trust- ees.

S. C., Inman.—Inman School Dist. No. 26 voted to issue \$7000 school bonds. Address H. E. Chapman, Chrmn. Board Trustees, Bank of Inman, Inman.

S. C., St. Matthews.—T. A. Amaker receives bids until May 20 to erect additions to graded school; ordinary construction; tin shingle roof; cost \$6000; steam heat about \$500; W. A. Edwards, Archt., Atlanta, Ga.

Tenn., Clinton.—A. C. Duggins, Supt. of Public Instruction of Anderson County, re- ceives bids until May 15 to furnish material and erect 9 schools in Anderson county; plans and specifications at office of A. B. Baumann, Archt., Henson Bldg.; Chas. I. Barber & Ben McMurry, Archts., Bank and Trust Bldg., all of Knoxville, Tenn., and Mr. Duggins, Clinton. (Lately noted to receive bids to erect 6 schools.)

Tenn., Ethridge.—Lawrence County Commrs., Lawrenceburg, Tenn., are reported to erect school to cost \$5000 to \$6000. (County lately noted to have voted \$30,000 bonds.)

Tenn., Saddy.—Bids received by High School Board of Education, Chattanooga, Tenn., D. H. Bloom, Chrmn., until May 12 to erect addition to high school; separate bids for heating; plans and specifications at office of Chas. E. Bearden, Archt., Chattna- nooga, and D. H. Bloom, Chrmn., Chattna- nooga. (Lately noted.)

Tenn., Sweetwater.—City votes June 10 on \$10,000 bonds for school. Address The Mayor.

Tex., Belton.—Prairie View School Dist. votes May 15 on \$5000 bonds to erect school. Address Dist. School Trustees. (Lately noted.)

Tex., Collins.—School Dist. is having plans prepared by Wm. Albert Tackett, 413-14 Mer- chants and Planters' Bank Bldg., Sherman, Tex., for school; 15 rooms; voted \$25,000 bonds. (Lately noted.)

Tex., Cleveland.—City voted \$40,000 bonds to erect school; brick and concrete; cost \$35,000; architect not selected. Address Cleveland School Board, Cleveland.

Tex., Gainesville.—Board of Control of Girls' State Training School is having plans prepared by E. E. McAnally, Southwestern Life Bldg., Dallas, for school, for which \$66,500 is available; cottage plan; let con- tract to sink deep well to C. M. Holland, Valley View, Tex., and for equipment of wells, including casing, piping and pump, to J. N. Nislar, Gainesville. (Lately noted.)

Tex., Littlefield.—Littlefield School Dist. voted \$15,000 bonds to erect school; 2 sto- ries; brick; ordinary construction; cost about \$10,000. Address Dist. School Trust- ees. (Lately noted.)

Tex., Marlin.—City votes June 15 on \$75,000 bonds for school. Address The Mayor.

Tex., Marshall.—Building Comm. of College of Marshall receives bids until May 19 at office of Geo. Burnett, 212 Cameron Bldg., Waco, Tex., or office of C. G. Lancaster, City Hall, Marshall, Archts., to erect administra- tion building; accommodate 720 pupils; cost about \$75,000; heating plant \$4000; plans and specifications may be had at office of either archt. (Lately noted.)

Tex., Rusk.—Rusk Academy is having plans prepared by S. W. Ray for girls' dormitory; 2 stories and basement; steam heat; 17 bath- rooms; ordinary brick construction; cost \$30,000. (Lately noted.)

Tex., Wharton.—Wharton Independent School Dist. will vote on bonds to erect high school. Address Dist. School Trustees.

Va., Leesburg.—School Board selected J. B. Crawford, Leesburg, as architect for pro- posed school; 11 classrooms with capacity of 420 pupils; auditorium to seat 600; manual training and domestic science equipment; structure to be 74x124 ft.; ordinary con- struction; slate roof; wood floors; hot-air heat; cost \$27,000; bids opened in about 30 days; will soon hold bond election.

Va., Norfolk.—City will soon begin erec- tion of annex to John T. West School ac- cording to plans and specifications by Brown & Lehman, Norfolk; J. H. Pierce, Norfolk, is lowest bidder at \$25,324 for build- ing, and American Heating & Ventilating Co. lowest bidder at \$5971 for heating plant for old and new buildings.

Va., Richmond.—C. P. Walford, Clerk and Suprv. of Public Schools, Administration Bldg., 305 E. Marshall St., receives bids un- til May 24 for material and erection of 2 schools as follows: Glinter Park School on Chamberlayne Ave.; Maury School Annex,

South Richmond; alterations and additions to Franklin School on Midlothian turnpike; separate bids for each building: (a) erection of building; (b) furnishing and installing heating and ventilating system; bidders may also bid on 2 or 3 schools jointly, showing bid on each; information, plans and specifications at office of Chas. M. Robinson, Archt., Times-Dispatch Bldg., Richmond.

W. Va., Beryl.—Board of Education, W. S. Smallwood, Prest., Piedmont, W. Va., will erect building. (See W. Va., Piedmont.)

W. Va., Keyser.—Keyser School Dist. voted \$35,000 bonds to acquire site, remodel Mansion House for schools, etc. Address Dist. School Trustees. (Lately noted.)

W. Va., Malden.—Malden School Dist. votes May 15 on tax to erect graded school; cost about \$7000; J. E. White, Prest. Board of Education of Malden Dist.

W. Va., Piedmont.—School Dist. voted \$8000 bonds to erect addition to Davis school, Piedmont, cost \$4500, and erect and equip school at Beryl, W. Va., cost \$3600; W. S. Smallwood, Prest. Board of Education. (Noted in April.)

## STORES

Ala., Birmingham.—H. & A. Ash, 215 20th St., will erect 2-story brick building on 2d Ave.

Ala., Tuscaloosa.—Richard Little will erect 4 stores on Greensboro Ave.; 3 stories, including basement.

Ark., Harrison.—Walters Dry Goods Co. will erect business building; probably 2 stories; 30x150 ft.

Ala., Selma.—W. L. Ward & Son will erect 2-story building to cost about \$10,000.

Fla., Deland.—A. S. Nidor, Jacksonville, will erect store building.

Fla., Lakeland.—Mrs. M. L. Brassel will erect building for 5 stores; 60x125 ft.; 1 story; brick; composition roof; plate-glass windows; wood floors; construction to begin within 60 days. (See Machinery Wanted.)

Ga., Atlanta.—H. S. Walker will erect 2-story brick business building; cost \$10,000.

Ga., Atlanta.—Victor R. Smith will erect 2-story brick business building on Peachtree St.

Ga., Macon.—B. T. Kemper will erect building at Broadway and 2d St.; 2 stories; brick; auditorium on second floor; cost \$15,000.

Ky., Middlesboro.—J. H. Tamer will erect store building to replace burned structure.

La., Houma.—Houma Bargain Store is having plans prepared by Favroy & Livaudais, New Orleans, for addition to building.

La., New Orleans.—L. Mastasi has plans by E. L. Market, New Orleans, for business building and residence; 2 stories; frame.

Md., Baltimore.—Louis Fisher is having plans prepared by Geo. R. Callis, Jr., 55 Knickerbocker Bldg., Baltimore, to remodel and erect addition to building at 1023 E. Baltimore St.; front of brick and terra-cotta; stores on first floor; assembly-rooms and lodge above; cost about \$25,000; plans ready about May 28.

Md., Riverdale.—O. Klinger will erect building for store and postoffice. (See Government and State.)

Miss., Clarksdale.—King & Anderson have plans by Chas. O. Pfeil, Memphis, Tenn., for building to contain 3 stores.

Miss., Clarksdale.—Delta Groceries & Cotton Co. will erect brick building.

Mo., St. Louis.—Mrs. V. Dietrich will erect addition to store and tenement-house at 423 Olive St.; cost \$4000; construction by owner.

North Carolina.—Building Comm. G. U. O. of O. F. adopted plans for building to contain stores, etc. (See Association and Fraternal.)

N. C., Hickory.—Chas. Geitner will remodel store on 9th St.; 2 stories and basement; brick; plate-glass front.

N. C., Wilmington.—J. Irving Bear has plans by J. F. Leitner and H. G. Dill, Wilmington, for store and office building at 105 Princess St.; 3 stories; 26x30 ft.; 1st floor, fireproof, concrete and tile; upper floors, wood; gas-steam radiator heat; cost \$7000; electric light, \$400; prism sidewalk lights, \$175; bids opened Apr. 15; address owner. (Lately noted.)

N. C., Winston-Salem.—A. S. Hanes, Winston-Salem, has plans by Joel R. Hill, Winston-Salem, for store on 5th St.; 40x100 ft.; mill construction; slag roof; cost \$4000; construction by owner. (Lately noted.)

Okla., Laverne.—W. R. Payne plans to erect business building; 50x80 ft.

Okla., Morris.—Bert C. Overton, Okmulgee, Okla., prepared plans for business building.

Okla., Pond Creek.—Henry Coldiron plans to erect brick or cement stone business building.

Okla., Sapulpa.—Mrs. Lottie Spencer will erect business building.

Okla., Tulsa.—L. L. Hutchison will erect store and office building at 5th and Main Sts.; 5 stories; fireproof. (Lately noted.)

S. C., Aiken.—W. J. Platt, Box 474, will erect drug store at 857 Laurens St.; 2 stories; 21x85 ft.; ordinary construction; probably tile or metal roof; tile floor; steel ceiling; electric light; building probably under supervision Byron Hain; address owner. (See Machinery Wanted, Beams, Iron.)

S. C., Spartanburg.—J. B. and F. J. Cleveland are reported to erect 3 brick stores on S. Church St.

Tenn., Nashville.—Bradford Furniture Mfg. Co. will erect store building on Fifth Ave.

Tenn., Nashville.—J. W. McClelland will erect brick stores and apartments at 113-15 Fourth Ave. N.; cost \$4000.

Tenn., Nashville.—McKendree Methodist Church is reported to erect office building with 2 stores on lower floor. (See Bank and Office.)

Tex., Cameron.—J. K. Freeman is reported to erect business building to replace lately-burned structure.

Tex., Dallas.—C. A. Keating will erect 1-story brick building at 2015 Carter St.; cost \$3500.

Tex., Dallas.—J. A. Hughes will expend \$4000 to remodel store at 1701 Main St.

Tex., El Paso.—Jolly & Morris will erect 2 brick business buildings at 112-14-16-20 S. Stanton St.; cost \$50,000.

Tex., El Paso.—Haymon Krupp is having plans prepared by Trost & Trost, El Paso, for business building on S. El Paso St.; 75x134 ft.; lower floor for stores; upper floor for apartments.

Tex., Florence.—Florence Mercantile Co. is having plans prepared by Mr. Goeth, Austin, for business building.

Tex., Marlin.—Gardere & Halloway receive bids until May 24 for general contract, heating, plumbing and wiring, for store building at Coleman and Winters Sts.; 2 stories; brick; fireproof; front and west sides of plate glass; cost over \$100,000; plans and specifications at office of Alfred Giles Co., Archt., San Antonio.

Tex., Mesquite.—M. C. Snyder is reported to erect brick business building.

Tex., Plainview.—Fred J. Stoer, Oakland, Cal., is reported to erect business building.

Tex., Waco.—Rotan Realty Co. will erect building; 2 stories; 55x100 ft.; concrete foundation, walls and floors; hollow-tile partitions; terra-cotta exterior finish; cost about \$40,000; bids reported received until May 10 through Ross & Cason, Archts., Waco; Sanguinetti & Staats, Associate Archts., Dallas, Fort Worth and Houston. (Lately noted.)

Va., Lynchburg.—R. G. Robertson will erect two 2-story brick stores on Commerce St.; frontage 40 and 45 ft., respectively; basement; cost \$6500.

Va., Norfolk.—J. Davis Reed, Portsmouth, Va., will erect store and apartment-house at Charlotte St. and Webster Court; 22x96 ft.; brick; gravel roof; concrete floor; cost about \$5000; Mitchell & Wilcox, Archts., Norfolk; bids opened May 12. (Lately noted at Portsmouth.)

Va., Richmond.—U. Baldacci will erect two-story brick store and dwelling at 1307 Hull St.; cost \$3080.

Va., Richmond.—J. W. Salmon will erect 2-story brick and concrete store on Broad St. between Laurel and Pine Sts.; cost about \$5500.

W. Va., Bluefield.—Conley Snidow will erect brick business block; lower floor for stores; upper floor for apartments.

W. Va., Huntington.—Jeff Newberry Shoe Co. and Frank R. Enslow will erect building at 3d Ave. and 11th St.; 6 stories and basement; 40x80 ft.; sprinkler system.

## THEATERS

Mo., St. Louis.—Orpheum Theater Co. is reported to erect theater at 9th and St. Charles Sts.; cost about \$400,000; Louis A. Cella is interested.

North Carolina.—Building Comm. adopted plans for building to contain theater, etc. (See Association and Fraternal.)

N. C., Lumberton.—A. H. McLeod has plans by J. M. Russell, Lumberton, for motion-picture theater; 100x23 ft.; ordinary construction; wood floor on concrete; hot-air heat; cost \$3000; electric light, \$200; construction by owner with day labor. (Lately noted.)

Okla., Weatherford.—Fred E. Sims and Hugh Cooper plan to erect moving-picture theater; 2 stories.

Tenn., Springfield.—The Bonita, M. S. Morton, Mgr., is promoting remodeling Bell property for opera-house and moving-picture theater; main auditorium and balcony to seat 750.

Tex., Beaumont.—Company organized by Lynn Gilbert and Clyde N. Blanchette will erect \$40,000 theater on Pearl St.; seating capacity 1200; dome and 40-ft. arcade entrance.

Tex., Pharr.—Mutual Investment Co. organized to erect theater to be occupied by W. E. Cage; J. A. Cook, Chrmn. Building Comm.

## WAREHOUSES

Ark., Little Rock.—C. H. Jeuryens will probably erect warehouse. (See Miscellaneous Enterprises.)

La., Houma.—A. M. & J. C. Dupont are having plans prepared by Favroy & Livau-

dais, New Orleans, for warehouse; metal siding and wireglass.

La., New Orleans.—Board of Port Commrs., Ernest M. Loeb, Prest., suite 200, New Orleans Court Bldg., receives bids until May 13 to construct reinforced concrete chimney and foundation in connection with cotton warehouses and terminals previously noted; plans and specifications at office of Ford, Bacon & Davis, Engrs., 921 Canal St. (See Machinery Wanted.)

Mo., Kansas City.—Monarch Vinegar Works will erect 70x55 ft. 1-story warehouse addition; L. G. Wilson, Archt., Kansas City.

Mo., St. Louis.—Hafner Mfg. Co. will rebuild burned warehouse; 164x200 ft.; mill construction; composition roof; yellow-pine flooring; cost \$50,000. (Lately noted.)

Okla., Chickasha.—Chickasha Cotton Oil Co. will erect seedhouse; 300x76 ft.; walls 20 ft. high; frame; concrete floor; capacity about 9000 tons.

S. C., Anderson.—J. E. Barton will erect warehouse to replace structure noted damaged by fire.

Tex., Orange.—L. J. Miller opens bids June 15 (extended date) to erect warehouse on Henderson St.; 50x150 ft.; fireproof; concrete roof; concrete floor; electric light; electric elevators; plans and construction by owner. (Noted in April.)

## BUILDING CONTRACTS AWARDED

### APARTMENT-HOUSES

D. C., Washington.—Thos. W. Smith let contract to Jas. L. Parsons, 507 Munsey Bldg., Washington, to erect apartment-house at 6th and A Sts.; 4 stories; brick; limestone trimmings; tile and slag roof; wood floor; fire doors; cost about \$25,000.

Fla., St. Petersburg.—Mrs. Mariette M. Burton, Erie, Pa., let contract to E. H. Lewis, St. Petersburg, to erect apartment-house on 4th St. North; 3 stories, 12 apartments, 40x96 ft.; ordinary construction; rubberoid roofing; double deadened wood floor; electric and gas light; gas heat, with electrical connections; cost \$10,000. (Contract noted in April let to Halsema Bros.)

Ga., Atlanta.—H. K. Improvement Co. let contract to R. M. Walker, Atlanta, to erect apartment-house at 253 Bedford Pl.; 3 stories; cost \$25,000; A. N. Canton, Archt., Atlanta.

Ga., Atlanta.—S. D. Mullins let contract to Mackie Construction Co., Atlanta, to erect 1-story brick veneer apartment-house at 235 E. 4th St.; cost \$7500.

Ky., Louisville.—Chas. S. Keller let contract to Louis Keller & Son, Louisville, to erect apartment-house at 1417 S. 2d St.; 35x60 ft.; ordinary construction; composition roof; cost \$10,000; heating \$600; plans by owner. (Lately noted.)

Mo., St. Louis.—Lowell Amusement Co. let contract to erect theater and tenement-house. (See Theaters.)

Mo., St. Louis.—C. Dickenson let contract to G. Sindquist, St. Louis, to erect 2-story flat at 3546-48 Grace St.; cost \$5000.

Mo., St. Louis.—R. Armbruster let contract to Arnold Construction Co., St. Louis, to erect 2-story flat at 1035-37 S. Taylor St.; cost \$6000.

Mo., St. Louis.—Alexander Gutzmann let contract to erect 4 and 5-room flat on Nebraska Ave.

Mo., St. Louis.—R. S. McMahon let contract to Thos. A. O'Keefe, St. Louis, to erect apartment-house on Nina Pl.; 6 suites of 4 rooms and sun parlor; site 100x156 ft.; cost \$32,000.

Mo., St. Louis.—H. Scheper let contract to F. A. Darr, St. Louis, to erect 2-story tenement-house at 4432-34 Manchester St.; cost \$5000.

Mo., St. Louis.—Mrs. E. Tarling let contract to H. Schulte, St. Louis, to erect 2-story tenement-house at 4114 Kossuth St.; cost \$3800.

Mo., St. Louis.—J. Michalek let contract to Wm. Scheybal, St. Louis, to erect 2-story tenement-house at 3408 Utah St.; cost \$5000.

Tenn., Nashville.—C. K. Colley, 33-40 Life and Casualty Bldg., let following sub-contracts in connection with erection of Sterling Court apartment-house on 16th Ave.: Foundation, Adamant Stone & Roofing Co.; concrete work, Foy Proctor Co.; lumber, Norvell & Wallace; shop work, J. O. Kirkpatrick & Sons; mill work, Riddle Co.; plumbing, East Side Plumbing Co.; heating, Nashville Machine Co.; electric work and lighting fixtures, Herbrick & Lawrence; tile work, Jones & Hopkins Mfg. Co.; roofing,

Uncle Hiram Roofing Co.; sheet metal work, Goodrich & McTigue; labor, J. W. Patrick & Co.; painting, Frank Pierce; plastering, Cooper-Ferguson Co.; hardware, Hermitage Hardware Co., all of Nashville; contracts for gas stoves, vacuum cleaner, refrigerators, interior decoration and kitchen cabinets not let; plans by owner call for structure 225x85 ft.; fireproof; 12 three-room, 12 four-room and 6 five-room apartments; reinforced concrete floors overlaid with oak; gravity steam heat; gas and electric lighting; Barrett roof; cost \$100,000. (Lately noted.)

Va., Orange.—Rev. A. J. Harlow let contract to erect building for apartments, etc. (See Theaters.)

Va., Norfolk.—L. A. Cowper has plans by and let contract to A. J. Reynolds, Norfolk, to erect apartment-house at 33d St. and Omohundro Ave.; 37x80 ft.; ordinary construction; gravel roof; pine floor; cost \$7500; steam heat \$700.

### ASSOCIATION AND FRATERNAL

Tenn., Union City.—Union City Lodge No. 679, B. P. O. E., let contract to H. F. Doyle, Cotton Plant, Ark., to erect building; 100x25 ft.; 2 stories; upper floor extending over adjoining store; cost \$7100. (Previously noted.)

### BANK AND OFFICE

Ga., Savannah.—Roanoke Iron Works, Inc., Roanoke, Va., has contract at \$3100 for ornamental iron and steel work for American Bank & Trust Co.'s building, for which E. W. Minter & Co., 115 Broadway, New York, has general contract at about \$100,000; Alfred C. Bosson, 366 5th Ave., New York, and E. W. Young, Savannah, Archts. (Lately detailed.)

Md., Baltimore.—Crown Cork & Seal Co., Guilford Ave. and Federal St., will construct office building; brick; let contract R. B. Mason, 308 W. Madison St., Baltimore; Otto G. Simonson, Archt., Maryland Casualty Bldg., Baltimore. (Lately noted.)

Tex., Mesquite.—Guaranty State Bank is reported to have let contract to erect brick bank building.

Va., Lynchburg.—Roanoke Iron Works, Inc., Roanoke, Va., has contract at \$2500 for ornamental iron work in Lynchburg National Bank Bldg., for which E. W. Minter & Co., 115 Broadway, New York, has general contract at \$110,000; Alfred C. Bosson, Archt., 366 5th Ave., New York. (Lately detailed.)

### CHURCHES

D. C., Washington.—Asbury M. E. Church let contract to Saml. J. Prescott & Co., 814 13th St., Washington, to erect building at 11th and K Sts.; 67x91 ft.; fireproof basement to first floor; slate roof; reinforced concrete floors; vapor vacuum heat; electric light; cost \$50,000; C. L. Harding, Archt., 1125 Woodward Bldg., Washington. Address Contrs. (Lately noted.)

D. C., Washington.—Keller Memorial Lutheran Church let contract to erect addition to building at Maryland Ave. and 9th St.



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K. E. to Walter B. Avery, 632 G St. N. W., Washington; 45x55 ft.; fireproof; steam heat; electric light; cost \$14,000; Macnell & Macnell, Architects, Union Trust Bldg., Washington. (Lately noted.)

Ky., Campbellburg.—First Baptist Church let contract to H. G. Mitchell, Scottsburg, Ind., to erect building; 83x63 ft.; ordinary construction; slate and composition roof; wood floor; hot-air heat; electric light; cost \$15,000; A. B. Meyers, Archt., St. Louis, Mo. (Lately noted.)

Md., Baltimore.—Church of the Blessed Sacrament let contract to Edw. Brady & Son, 1113 Cathedral St., Baltimore, to erect dwelling on Old York Rd. between 42d and Spring Hill Sts.; 33.4x34.6 ft.; 2 stories; ordinary construction; slag roof; hot-water heat; cost \$16,000.

Md., Frederick.—Grace Reformed Church let contract to Harlan W. Hagan, Frederick, to improve and erect addition to Sunday-school; addition 24x61 ft.; exterior walls of hard brick; floors carried on steel columns and "I" beams; basement to have concrete floor, plastered walls and metal ceiling; Kepner & Smith, Architects, Frederick.

Tex., El Paso.—Trustees let contract to J. W. Bedford, 700 N. Stanton St., El Paso, to erect church at 3101 Montana St.; 47.6x65.6 ft.; ordinary construction; pressed brick; rubber shingle roof; B. B. floor construction; furnace \$100; electric light \$100; cost \$500; Bulger & Son, Architects, Dallas. (Lately noted.)

Va., Franklin.—Franklin Christian Church let contract at \$11,750 to E. C. Smith, Franklin, to erect building; 43½x78 ft.; red pressed brick; stone trimmings; square towers; slate and gravel roof; hot-air heat and ventilating system; electric lights; Wm. Newton Diehl, Archt., 46 Chamberlaine Bldg., Norfolk. (Lately noted.)

Va., Graham.—West Graham Methodist Church let contract to I. P. Fry for brick work and to Leedy & Barnett, Graham, for woodwork on building; brick construction; cost \$2500 to \$3000. (Lately noted.)

Va., Holland.—Holy Neck Church has plans by and let contract to R. H. Riedel, Holland, to remodel building near Holland; ordinary construction; Cortright metal-shingle roof; hot-air heat; cost \$6000; noted in April. (See Machinery Wanted.)

## CITY AND COUNTY

Fla., Jacksonville.—Armory.—F. W. Long & Co., 424 E. Bay St., Jacksonville, general contractors to erect armory, let contract to Ford Roofing Co., Jacksonville, for roofing; A. C. Conyers, Jacksonville, for brick, and H. H. Hull, representing Price-Evans Co., Chattanooga, Tenn., steel; cost about \$150,000; Talley & Summers Co., Architects, Jacksonville. (Other contracts lately noted.)

Miss., West Point.—Library.—City let contract to Standard Construction Co., Meridian, Miss., to erect Carnegie library; 36x72 ft.; ordinary construction; tar and gravel roof; steam heat; electric light; cost \$9700; M. M. Alsop, Archt., West Point. Address Contr. (Noted in Apr.)

Mo., Kansas City.—Library.—Directors of Kansas City School Board let contract to L. M. Rowland, 1709 E. 9th St., Kansas City, to erect library at Westport Ave. and Wyandotte St.; 23x52 ft.; fireproof; composition roof; concrete floors; address School Board; for heating, address J. H. Brady, Ch. Engr. (Noted in Apr.)

Mo., Morehouse.—City Hall and Jail.—City let contract to Geo. Gassenau, Charleston, Mo., to erect city hall and jail; 60x80 ft.; asbestos slate roof; concrete (Kahn) floor; cost \$3000; Lindsay Architectural Co., Archt., Sikeston, Mo. (Lately noted.)

N. C., Elizabeth City.—Jail.—County Commissioners let contract to J. W. Martin, Elizabeth City, to remodel jail and raise roof; steel construction; tin roof; cement floor; electric lighting; cost \$3735; Harvey Abrams, Archt., Norfolk, Va. (Noted in April.)

N. C., Wilkesboro.—Jail.—Wilkes County Commrs. let contract at \$3575 to Foster, Allen & Brookshire Co., Wilkesboro, to erect jail, and at \$2914 to Pauly Jail Building Co., St. Louis, for steel work; Hook & Rogers, Architects, Charlotte, N. C. (Lately noted.)

## COURTHOUSES

Tex., Beaumont.—Jefferson County Commrs. let contract at \$22,774 to Herman Weber, Beaumont, to erect addition to courthouse according to plans by Babin & Beck, Beaumont; addition 36x50 ft. to 3-story building; ordinary construction; slate roof; tile and wood floors; steam heat; city lighting; ele-

vators to be let separately; lately noted. (See Machinery Wanted.)

## DWELLINGS

D. C., Washington.—J. L. Primm let contract to Jas. L. Whiteside, 628 Lawrence St. N. E., to erect dwelling at 1337 Lawrence St.; 2 stories; 28x27 ft.; frame; slate roof; hot-water heat; electric light; cost \$4500.

Fla., Bradentown.—Capt. D. McLewis let contract to erect bungalow on Manatee River; finished in Kellastone; T. W. Hurlinger & Son, Contrs., Bradentown.

Fla., Orlando.—C. P. Bartholomew let contract to Jos. Kirkland, Orlando, to erect dwelling; 46x36 ft.; stone and wood; shingle roof; city lighting; no heating; cost \$2500. (See Machinery Wanted.)

Fla., Palm Beach.—C. C. Lightbown, West Palm Beach, has contract to erect 2 residences in Palm Beach.

Fla., St. Augustine.—Mrs. O. H. Bacon will erect residence costing probably \$50,000; nearly all contracts let; E. F. Strassle, Archt., New York.

Fla., St. Augustine.—Chas. D. Segul let contract to erect residence; 2 stories; 8 rooms and bath.

Fla., Tampa.—F. McPherson let contract to Geo. Wolfgang, Tampa, to erect residence; foundation, pillars and floors of porch of coccinea rock; interior finish white enamel and mahogany; cost about \$500.

Ga., Atlanta.—Mrs. S. E. Cowley let contract to Spinks & Butler, Atlanta, to erect three 1-story dwellings at 861-5-71 Gordon St.; cost \$6000.

Ga., Augusta.—C. B. Holley, Augusta, general contractor to erect 2 dwellings for E. P. Sawyer, let following sub-contracts: Slate roofs and metal work, E. A. Denmore; stucco, plastering and tile work, M. Tezza; plumbing and hot-water heating, T. G. Brittingham; millwork, Perkins Manufacturing Co.; painting, Reese & Latimer; electric work, Brill Electric Co.; screens and hardwood floors, Jas. M. Barrett, all of Augusta; general contractor will do carpenter work, brick and tile (hollow) work by day labor; cost of buildings about \$42,000. (Contract for hollow tile lately noted.)

Ga., Camilla.—W. J. Fleming, Cincinnati, let contract to Smith & Watson, Albany, Ga., to erect dwelling; mill construction; tile roof; electric light; cost \$6500; Hanniford & Son, Architects, Cincinnati.

Ga., Griffin.—Mrs. T. H. Wynne let contract to L. P. Blanton & Son, Griffin, to erect residence; 2 stories; frame; cost \$4000; construction under supervision of W. M. Conkle.

Ga., Tifton.—T. E. Stubbs let contract to W. H. Spooner, Tifton, to erect dwelling; 38x63 ft.; brick-veneer; composition roof; rift pine floor; cost \$6000. Address owner. (Lately noted.)

Ky., Paducah.—Jake Well let contract to Gus Lockwood, Paducah, to remodel residence at 8th and Jefferson Sts.; cost about \$3500.

La., Loxley.—Earl Denal let contract to Jas. S. Burns, Loxley, to erect dwelling; 24x40 ft.; ordinary construction; flat coat roof; pine floor; cost \$3000.

La., New Orleans.—German-American Homestead Assn. let contract to Alexander L. Smith, New Orleans, to erect 2-story frame residence; cost \$3300.

Md., Raspeburg.—Geo. Spindler, Baltimore, will build 35x28-ft. 2-story dwelling costing \$10,000 at York Rd. and Beaumont Ave.; Blake & Engel, Contrs., Law Bldg., Baltimore; John W. Nelson, Jr., Archt., Raspeburg.

Md., Baltimore.—Wm. E. Jordan let contract to E. G. Turner, 15 E. Fayette St., Baltimore, to erect dwelling at Garrison and Alto Aves.; 2½ stories; 31x48.6 ft.; frame; cost \$5000.

Miss., Clarksdale.—John Small has plans by and let contract to W. Morford, Clarksdale, to erect dwelling; 2 stories; 8 rooms; ordinary construction; metal shingle roof; edge grain pine floor; hot-air heat; electric light; cost \$5000; address Contr.

N. C., Greensboro.—M. W. Gant let contract to W. C. Bain to erect dwelling on Wainman St.; cost \$7000, including heat; Harry Barton, Archt. (Lately noted.)

N. C., Oxford.—C. H. Easton let contract to J. M. Campbell, Oxford, to erect dwelling; 10 rooms; frame; slate roof; wood floors; cost \$6000; Rose & Rose, Architects, Durham, N. C.; construction begun. (Lately noted.)

N. C., Wilson.—Dr. B. S. Herring let contract to E. F. Killeto & Co., Wilson, to

erect dwelling; Spanish design; brick and stone; clay tile roof; cost \$12,000; Benton & Moore, Architects, Wilson.

N. C., Wilson.—J. T. Cheatham let contract to Camden & Baker, Greenville, N. C., to erect dwelling; brick veneer; cost \$8000; Benton & Moore, Architects, Wilson, N. C.

Okla., Oklahoma City.—W. M. Williams has plans by Maurice Jayne, 503 American Bank Bldg., Oklahoma City, and let contract to Stewart & Wilderson, Oklahoma City, to erect residence; 8 rooms; frame; 28x51 ft.; gas and electric fixtures; cost \$3000; contractors to purchase materials.

S. C., Edgemore.—R. A. Willis let contract to W. W. Blair, Chester, S. C., to erect residence; 12 rooms; 2 stories; frame; composition shingle roof; cost \$5000, including plumbing and lighting.

Tex., Athens.—Tom Faulk let contract to Walter G. Shaddy, Athens, to erect dwelling; 1 story; 52x65 ft.; brick veneer; metal tile roof; one pipe gravity system steam heat; cost \$6000; construction begun. (Lately noted.)

Tex., Dallas.—P. R. Freeman, Jr., let contract to Walter Whitley, Dallas, to erect 1½-story residence; brick veneer; construction begun; Woerner & Cole, Architects, 509 Sumpter Bldg., Dallas.

Tex., Dallas.—R. C. Kennedy let contract to erect residence; 2 stories; 8 rooms; frame; construction begun; Woerner & Cole, Architects, 509 Sumpter Bldg., Dallas.

Tex., Dallas.—W. S. Gibson let contract to Sparks Bros., Dallas, to erect 2-story frame residence on Lemmon St.; Woerner & Cole, Architects, 509 Sumpter Bldg., Dallas.

Tex., Marfa.—F. C. Mellard let contract to Kroeger & Richey, El Paso, to erect dwelling; 40x60 ft.; ordinary construction; shingle roof; cost \$5000; Trust & Trust, Architects, El Paso.

Tex., San Antonio.—Gus Giesecke, 228 Washington St., let contract to August Fuesel, 2001 Virginia St., San Antonio, to erect dwelling; 10 rooms; 2 stories; brick and tile construction; tin or tile roof; hardwood floors; hot-water heat; 3-wire electric-lighting system, \$250; concrete sidewalks; cost about \$17,000; Aug. A. Herff & Co., Architects, San Antonio. (Lately noted.)

Tex., Victoria.—Frank Crain let contract to erect residence; cost \$7500.

Va., Roanoke.—Benson M. Phelps let contract to H. H. Carter, R. F. D. No. 5, Roanoke, to erect dwelling on King George Ave.; 32 ft. square; two 10-ft. porches; Bucking slate roof; No. 1 clear white oak floors; cost \$5000; hot-water heat, \$500; electric light; concrete walks; J. G. Coger, Archt., 621 8th Ave., Roanoke. (Lately noted.)

W. Va., Parkersburg.—Jas. W. Dile, 211 6th St., let contract to Burwell & Snodgrass, Union Trust Bldg., Parkersburg, to erect dwelling.

W. Va., Roney's Point.—Henry Schmulbach let contract to Wheeling Planing Mill Co., Wheeling, for mill work only in construction of lodgehouse for tenants, dairy barn, etc. (Lately noted to have let contract.)

## GOVERNMENT AND STATE

Fla., Pensacola.—Postoffice, Courthouse and Custom-house.—Treasury Dept., Washington, D. C., opened bids to remodel postoffice building; C. H. Turner Co., Pensacola, lowest bidder, and will receive contract; fireproof; slate roof; brick and concrete floors; cost about \$30,000. (Lately noted.)

Md., Beltsville.—Farm.—Department of Agriculture, D. F. Houston, Secy., Washington, D. C., let contract to J. L. Robinson Construction Co., 66 Knickerbocker Bldg., Baltimore, to erect 2-story brick and concrete building for U. S. experimental farm; cost \$5000. (Noted in Apr.)

Md., Indian Head.—Storehouses.—Bureau of Yards and Docks let contract at \$3772 to J. H. Nolan Construction Co., 607 Munsey Bldg., Washington, D. C., to erect 2 corrugated steel buildings at Indian Head Proving Grounds; 25.10x61 ft.; concrete floor; corrugated steel roof. (Lately noted.)

Mo., Kansas City.—Offices.—Edelmann & Fleming have contract to enlarge office space on 15th floor of Commerce Bldg. at cost of \$14,000; Madorie & Birdsall, Architects, Kansas City; will be occupied by Board of Managers of National Soldiers' Homes.

## HOSPITALS, SANITARIUMS, ETC.

Ky., Harrodsburg.—A. D. Price Memorial Hospital let contract to Cal. F. Thomas & Co., Realty Bldg., Louisville (not Cal. S. Thomas & Co. as lately noted), to erect

building; 2 stories and basement; cost about \$10,000; Samuel Hannaford & Sons, Architects, Cincinnati.

Md., Easton.—W. A. Richman, Moorestown, N. J., general contractor to erect hospital, transferred contract to Richman Construction Co., Moorestown, who let following sub-contracts: Iron work, D. A. Wedmore Co., Camden, N. J.; mill work, Hall Bros. & Wood; waterproofing, Reid-Waples Co.; hollow tile, National Fireproofing Co.; cut stone, Jos. P. Quinn; plumbing, Flynn & Love; heating, Bowers Bros.; all of Philadelphia; bricks, Sayre & Fisher, Sayreville, N. J.; concrete work (completed), C. W. Sigman, Easton; slate roofing, M. P. MacGarvie, Magnolia, N. J.; slag roofing, Warren-Ehret Co., Baltimore; plans by Guy King & Co., Philadelphia, call for structure 118x40 ft.; cost \$40,000; contractor wants bids on metal work and painting; lately noted. (See Machinery Wanted.)

Tex., Corsicana.—County Commrs., Navarro county, let contract to A. Z. Rodgers, Abilene, Tex., to erect addition to hospital; 1 story; 30x125 ft.; ordinary construction; shingle roof; steam heat, \$1200; conduit lighting, \$125; dumbwaiter; cost \$8000; Ernest E. McAnelly, Archt., 1301 Southwestern Life Bldg., Dallas, Tex.; construction begun; heating and plumbing contract, J. H. Wooly; wiring, Ricket Electric Co., both of Corsicana; cost of heating, plumbing and wiring, \$2500. (Noted in Meh.)

Tex., Wichita Falls.—County Commrs., and city let contract to Lisle Dunning Construction Co., Fort Worth, to erect hospital; reinforced concrete; composition roof; Dunham vacuum system of heating, \$2500; hand-power freight elevator and 2 dumbwaiters; cost \$35,000; Field & Clarkson, Architects, Wichita Falls. (Noted in Apr.)

Va., Richmond.—City let contract to Chas. F. Duggins, 523 Park Ave., Richmond, to erect building for consumptives; 26x124 ft.; mill construction; tin roof; wood floors; cost \$3000; Carnel & Johnston, Architects, Richmond. (Lately noted under City and County.)

## HOTELS

Ala., Birmingham.—A. L. Fulenwider let contract to M. C. Banks, Birmingham, to erect hotel building at 5th Ave. and 17th St.; 3 stories; brick; 100x140 ft.; 60 rooms, each with private bath; cost \$50,000 to \$60,000; Wm. C. Weston, Archt., Birmingham.

Tenn., Morristown.—Company, organized by J. C. and L. M. Mitchell and L. V. Rader, let contract to erect hotel on Virginia Hotel site; fireproof; electric passenger elevators; 46x145 ft.; 75 rooms and 25 baths; cost \$38,000.

Tex., Marlin.—Mrs. Tom Ellisberry let contract to Portele Bros., Marlin, to rebuild Marble Inn previously burned; 2 stories; 20 rooms.

Va., Norfolk.—Chas. Consolvo let contract to Mercer & Johnson, Norfolk, to erect roof garden on west wing of Monticello Hotel; Ferguson, Calrow & Taylor, Architects, Norfolk.

## MISCELLANEOUS

Ala., Mobile.—Home.—Episcopal Diocese of Alabama, John T. Cochrane, Chmn. Bldg. Com., Montgomery, let contract to Realty Construction Co., Birmingham, to erect 3 buildings for Church Home for Orphans; 40x70 ft.; slow-burning construction; hollow tile walls; tile roof; floors of mill construction; hot-air heat—each building separate; electric lighting; cost \$30,000; John A. Wetzel, Archt., Mobile. (Lately noted.)

Tex., Dallas.—Wells, Fargo & Co. Express, 51 Broadway, New York, let contract to Watson Co., Dallas, to erect stable at 2008-10-12-14 Cochran St.; 1 and 2 stories; cost \$25,000.

Tex., Orange.—Fair.—Orange County Fair Assn. let contract to C. H. Nemits, Orange, to erect exposition hall; 36x200 ft.

## RAILWAY STATIONS, SHEDS, ETC.

Fla., Bartow.—Seaboard Air Line Ry. let contract to Elliott & Co., Hickory, N. C., to erect passenger station at Peace Valley.

S. C., Anderson.—Piedmont & Northern Ry., E. Thompson, V. P. and Gen. Mgr., Charlotte, N. C., let contract to Fiske-Carter Construction Co., Greenville, S. C., to rebuild freight depot damaged by fire; 50x240 ft.; 2 stories; ordinary construction; tile roof; wood floor; cost \$20,000.

Tenn., Lewisburg.—Lewisburg & Northern R. R. and Nashville, Chattanooga & St. Louis Ry. let contract to F. G. Holladay Co., Noel Block, Nashville, to erect passenger and freight depots; brick and reinforced

concrete; passenger station floors of tile. (Lately noted.)

### SCHOOLS

Ala., Jacksonville.—State Normal School Board, Montgomery, let contract to W. H. Nunnally, Jacksonville, to erect dormitory at Normal School; cost about \$40,000. (Lately noted.)

Ala., Livingston.—State Normal School Board, Montgomery, let contract to W. L. Coston, Bessemer, to erect dormitory at Normal School; cost about \$40,000. (Lately noted.)

Ala., Troy.—State Normal School Board, Montgomery, let contract to R. V. LeBarre, Birmingham, to erect dormitory at Normal School; cost about \$40,000. (Lately noted.)

Fla., Apalachicola.—Board of Public Instruction let contract to W. V. Henry, Jacksonville, to erect school; 70x125 ft.; ordinary construction; felt and gravel roof; wood floor; steam heat; blower ventilation; electric light; cost \$22,000; C. F. Sheeter, Archt., Jacksonville; contract for plumbing let to Coons & Golder, Jacksonville. (Noted in April.)

Fla., Fellsme.—Board of Public Instruction let contract at \$29,300 to A. F. Sanders, Fellsme, to erect school; 2 stories; 60x140 ft.; ordinary construction; brick; wall tile and wooden floors; composition roof; electric lights; steam heat; furnishings to cost \$35,000 additional; F. H. Trimble, Archt., Fellsme. (Lately noted.)

La., Tioga.—School Board let contract to E. T. Elam to erect 2-story brick school to cost \$15,235.

La., West Monroe.—Parish School Board let contract to Caldwell Bros., Abbeville, La., to erect school; also to Louis Cooper and T. E. Utley, respectively, for plumbing and painting. (Lately noted.)

Mo., Bigelow.—School Board, Frank Walker, Clerk, let contract to Geo. W. Wright & Son, 713½ Edward St., St. Joseph, Mo., to erect school building; 60x80 ft.; ordinary construction; metal roof; wood floors; hot-air heat; electric lighting; cost \$12,000; W. F. Schrage, Archt., 43 E. 32d St., Kansas City, Mo. (Lately noted.)

Mo., Rolla.—Board of Education let contract at \$21,244 to Charles Cunliff, St. Louis, to erect high school; H. H. Hohenschild, Archt., 310-11-12 Navarre Bldg., St. Louis. (Lately noted.)

Mo., Kansas City.—Board of Education let contract to Hollinger Construction Co., Kansas City, to erect school at 23d St. and Elmwood Ave.; 77x11 ft.; fireproof; composition roof; concrete floors; cost \$30,000; Chas. A. Smith, Archt., 602 Finance Bldg., Kansas City. Address J. H. Brady, Chief Engr., for heating and lighting.

Mo., Smithton.—Smithton School Dist. let contract to Smithton Lumber Co., Smithton, to erect school; 65x18 ft.; ordinary construction; hip roof; \$800 steam-heating plant; granitoid sidewalks; T. W. Bast, Archt., Sedalia, Mo.

N. C., Old Fort.—City let contract to Nunn Construction Co., Greenville, S. C., to erect school; brick and stone; steam heat; cost \$15,000; Benton & Moore, Archts., Wilson N. C.

N. C., West Raleigh.—Agricultural and Mechanical College let contract at \$15,690 to Longest & Tessier Co., Greensboro, N. C., to erect first wing of dormitory; accommodations for about 30 students; H. P. S. Keller, Archt., Raleigh. (Lately noted.)

S. C., Blacksburg.—School Comms. let contract to Blankenship & McClellan, Commercial Bank Bldg., Charlotte, N. C., to erect addition and make improvement to high school; ordinary construction; Carey composition roof; maple floor; electric light; cost \$8441; Adlai Osborne, Archt., Charlotte. (Noted in April.)

S. C., Charleston.—School Board let contract to Charleston Engineering & Contracting Co., Charleston, to remodel and erect addition to Crafts school; 18 classrooms; ordinary construction; tin roof; wood floors; cost \$27,000; hot-water heat \$3600; David B. Iyer, Archt., Charleston. (Noted in April.)

Tenn., Chattanooga.—Baylor University School let contract to Chattanooga Blow Pipe & Roofing Co. for roofing; Pechman & Pechman, plumbing; Frank Lossman, plastering; lumber and frames, Willingham & Co.; interior finish, Lookout Planing Mills; all of Chattanooga; Englehart & Co., Atlanta, Ga., heating; J. Hoadley & Sons Co., Stinesville, Md., cut stone; work on 3 structures; main school building of rough dark-red brick; 150x41 ft.; study hall on lower floor, 63x25 ft., surrounded by 8 classrooms,

each 19x16 ft.; residence for associate principal in rear; upper floor for boarding-rooms; entrance to main structure through hall 25x50 ft.; gymnasium 50x80 ft.; total cost \$54,000; W. T. Downing, Archt., Atlanta, Ga. (Other subcontractors previously mentioned.)

Tenn., Knoxville.—Knox County Board of Education let contract to W. P. Lawson and J. A. Cox, Knoxville, to erect school; 12 rooms; brick veneer; slate roof; \$3000 steam heat; electric light; cost \$15,000; Chas. Barber and L. C. Walters, Archts., Knoxville. (Lately noted.)

Tex., Bedford (not a postoffice).—School Board, Route 3, Arlington, Tex., let contract to C. C. Estell, Grapevine, Tex., to erect school to cost about \$5000.

Tex., Fairfield.—School Board let contract to L. E. Adkins, Teague, Tex., to erect school building; 64.6x77 ft.; fireproof construction; gravel roof; cost \$10,000; C. H. Leimbach, Archt., 1105 Southwestern Life Bldg., Dallas. (Noted in Apr.)

Tex., Gatesville.—State Juvenile Training School let contract at \$12,500 to J. E. Johnson, Waco, to remodel main building; 30x75 ft., with wing 30x40 ft.; Barrett specification roof; reinforced concrete slab floor; brick and stone; fireproof; Roy & Lane, Archts., Peerless Bldg., Waco. (Lately noted.)

Tex., Gilmer.—School Board is reported to have let contract to Charlie Edwards, Gilmer, to erect high school; 122x70 ft.; ordinary construction; gravel roof; hot-air heat; electric lights; cost \$25,000 without mechanical equipment. (Lately noted.)

Tex., Refugio.—School Trustees have plans by R. L. Pierce, Central Office Bldg., San Antonio, for school to cost about \$10,000; contract let.

Tex., Sherwood.—Irion county let contract to Oats & Sullivan, Comanche, Tex., to erect school; 60x80 ft.; fireproof; gravel roof; cost \$10,000; plans by Contrs. (Noted in April.)

Tex., San Antonio.—School Board let contract at \$31,379 to Western & Kroeger, San Antonio, to erect additional school; 8 or 12 rooms; concrete.

Tex., Tivoli.—School Trustees have plans by R. L. Pierce, Central Office Bldg., San Antonio, for school to cost about \$10,000; contract let.

Tex., Woodsboro.—School Trustees have plans by R. L. Pierce, Central Office Bldg., San Antonio, for \$10,000 school; contract let.

Va., Ashland.—School Board let contract to E. C. Woodward, Richmond, to erect high school and addition; 165x57 ft.; ordinary construction; tin roof; wood floors; American Heating & Ventilating system; wired for electricity; cost \$22,000; Chas. M. Robinson, Inc., Archt., Richmond. (Lately noted.)

Va., Fort Defiance.—Augusta Military Academy let contract to Harwood & Moss, Newport, News, Va., to erect barracks; fireproof; concrete and tile construction; cost about \$56,500; T. J. Collins & Son, Archts., Staunton, Va. (Contract lately noted let, but this not signed.)

Va., Franklin.—City is not having plans prepared by Chas. M. Robinson, Inc., Richmond, for school building as lately reported.

Va., Lynchburg.—Virginia Episcopal School let contract to J. P. Pettyjohn & Co., Lynchburg, to erect administration building; 70x107 ft.; ordinary construction; slate roof; wood floors; low-pressure steam or vapor heat; electric light; hand-power lift; cost \$45,000; plans by F. H. Brooke, Telegraph Bldg., Washington, D. C.; address Contr.; date of beginning construction indefinite. (Lately noted.)

W. Va., Grafton.—Board of Education let contract to Roche-Bruner Bldg. Co., Cincinnati, to erect high school; semi-fireproof; cost about \$75,000; Frank L. Packard, Archt., Columbus, O. (Lately noted.)

### STORES

Ala., Bessemer.—Dr. J. C. Curry, 2009 3d Ave., let contract to Central Lumber Co., Bessemer, to erect four stores, 25x100 ft.; ordinary construction; gravel roof; cement floors; cost \$5000; W. E. Benns, Archt., Bessemer. (Lately noted.)

Ala., Brantley.—Henderson & Hill let contract to James Smyth, Greenwood, Ala., to erect store building; 95x100 ft.; brick; plate-glass front.

Ala., Mobile.—Frank Ortman let contract to Hancock, Harbin & Hancock, Mobile, to erect building for drug store; 32x78 ft.; ordinary construction; composition roof; concrete floors; cost \$7000; Hutchisson & Denham, Archts., Mobile. (Lately noted.)

Fla., Bradentown.—J. W. Stevens let contract to Mock & Stubbs, Tampa, Fla., for store, office and warerooms; to erect building on Manatee Ave.; 2 stories; 125x80 ft.; brick; composition roof; 2 elevators \$600; cost \$20,000; C. H. Glass, Archt., Tampa; address contractors. (Lately noted.)

Fla., Winter Haven.—Snell National Bank let contract to erect brick business building adjoining bank.

Ga., Atlanta.—Campbell & Brownlee let contract to Aiken & Parr, Atlanta, to erect 3-story brick building at 377-79-81 Edgewood Ave.; cost \$11,500.

Ga., Macon.—H. B. Erminger, Jr., let contract to remodel Turpin Bldg.; will lower first floor to street level; face with white tile brick; cost several thousand dollars.

Md., Federalburg.—O. G. Williamson let contract to Ira Lewis, Federalburg, to erect store building; 100x22 ft.; cement blocks; metal roof; wood floors; cost \$2000 without mechanical equipment; lately noted. Address owner. (See Machinery Wanted.)

Miss., Laurel.—B. Libetti let contract to J. M. Guy, Laurel, to erect 2-story brick building on Front St.

Mo., St. Louis.—Geo. F. Tower let contract to J. Hill Construction Co., St. Louis, to erect 4-story store at 610 Olive St.; cost \$20,000.

Okla., Claremore.—Cogswell & Walker let contract to L. R. Johnson, Claremore, to erect department-store building; 70x130 ft.; reinforced concrete and steel; concrete roof with asbestos covering; steam heat, \$1000; city lighting; cost \$15,000; J. W. Roberts, Archt., Claremore. (Lately noted.)

Okla., Drumright.—O'Dell & Stephenson let contract to J. F. Rankin, Drumright, to erect store building; 25x75 ft.; 2 stories; practically fireproof; tar and gravel roof; wood floors; electric lighting; cost \$5000; John Miller, Archt., Drumright; construction begun. (Lately noted.)

Okla., Tulsa.—C. C. Cole let contract to J. R. Burns to erect mercantile building at 5th and S. Boston Sts.; 100x140 ft.; 2 stories; cost \$22,000; J. P. Curtin, Archt., Tulsa. (Noted in April.)

Tenn., Knoxville.—Sanford estate is reported to have let contract to erect 5 stores; 1 story; 60x100 ft.; plate-glass front.

Tenn., Tellico Plains.—Newkirk & Williams let contract to J. O. Duggan, Etowah, Tenn., to erect moving-picture theater and 5-room arcade; 50x60 ft.; 1 story; brick, iron and glass construction; composition roof; hard wood floors in theater, concrete in arcade; electric lighting; probably install steam heat in fall; cost \$3000 without equipment. (Lately noted.)

Tenn., Memphis.—George L. and Wm. L. Forrest, Randolph Bldg., Memphis, and 62 William St., New York, let contract to Wm. Burrows, 358 Beale Ave., Memphis, to erect store building at 447-53 Monroe Ave.; 1 story; 14x50 ft.; ordinary construction; Carey flexible cement roof; concrete ground floor; city light; cost \$15,000; W. T. Bailey, Archt., 358 Beale Ave., Memphis.

Tex., Dallas.—E. Rabinowitz and S. Michaelson let contract to Trinity Construction Co., Dallas, to remodel and erect addition to business building at 2214 Elm St.; Woerner & Cole, Archts., 509 Sumpter Bldg., Dallas.

Tex., Dallas.—Dr. W. E. Rucker, McKinney, Tex., let contract to John M. Martin, Dallas, to erect building at Bryan and Peak Sts. for store and motion-picture theater; 78x140 ft.; 1 story; ordinary construction; gravel roof; cement and tile walk; cost \$15,000; construction begun. (Lately noted to be erected by Central State Bank & Trust Co.)

Tex., Fort Worth.—James Liston let contract to E. E. Churchill, Fort Worth, to erect 2-story brick store at 15th and Jones Sts.; cost \$14,000.

Tex., Marion.—C. A. Kreuger & Co. have plans by R. L. Pierce, Central Office Bldg., San Antonio, for store building; cost about \$7500; contract let.

Va., Orange.—Rev. A. J. Harlow let contract to erect building for stores, etc. (See Theaters.)

Va., Norton.—F. C. Lowry, Norton, and D. W. Lowry, Coeburn, Va., have plans by and let contract to T. V. Hurt, Norton, to erect store on Main St.; 35x100 ft.; ordinary construction. (Noted in April.)

Va., Richmond.—R. Castberg will erect 130x35-ft. 2-story store and stable; cost probably \$10,000; D. Wylie Anderson, Archt., Richmond; E. R. Siebers, Contr., Richmond.

W. Va., Huntington.—Thos. H. Harvey let contract to C. Smith, Huntington, to remodel building for hardware store; 30x10 ft.; 3 stories; ordinary construction; composition roof; concrete and wood floors; cost \$5000; W. B. Smith, Archt., Huntington. (Lately noted under Dwellings.)

### THEATERS

Mo., St. Louis.—Lowell Amusement Co. let contract to J. F. Ruff, St. Louis, to erect 2-story theater and tenement-house at 5037-39 N. Broadway; cost \$8891.

Mo., St. Louis.—Shaw Avenue Investment Co. let contract to W. L. Denham, 1395 Shawmut Pl., St. Louis, to erect 2-story moving-picture theater at 3901-03-05 Shaw Ave.; 62x137.6 ft.; fireproof; concrete roof on Hyrl, with composition covering; concrete floor overlaid with yellow pine; \$2000 combination steam and hot-water heating equipment; \$600 electric light; cost \$20,000. (Lately noted.)

N. C., Wilmington.—Howard & Wells have plans by B. H. Stephens, Wilmington, and let contract at about \$18,000 to Rhodes & Underwood, Wilmington, to erect theater on Front St.; 44x125 ft.; height of 2-story structure; ornamental pressed brick and terra-cotta; copper and plate-glass marquee; let contract for mirror screen of heavy plate glass to cost \$1000. (Lately noted.)

Tenn., Tellico Plains.—Newkirk & Williams let contract to erect arcade and moving-picture theater building. (See Stores.)

Tex., Dallas.—Dr. W. E. Rucker, McKinney, Tex., let contract to erect building for theater and store. (See Stores.)

Tex., Kaufman.—James T. Hatchet let contract to Russell Smith, Kaufman, to erect brick opera-house; 50x100 ft.; main auditorium 60x65 ft.; lobby 20x50 ft.; cost \$10,000.

Tex., Laredo.—H. F. Valdez let contract to C. T. Boelhaue, San Antonio, to erect theater; cement and stucco; completion by Sept. 1.

Va., Orange.—Rev. A. J. Harlow is erecting building on E. Main St. for moving-picture theater; 22x60 ft.; storeroom 14x32 ft. and 2 other rooms; second-floor for apartments; cost several thousand dollars; John W. Reynolds, Contr., Orange.

### WAREHOUSES

D. C., Washington.—Fries, Beall & Sharp let contract to Davis Construction Co., 6023 Union Trust Bldg., Washington, to erect warehouse at 734-6 10th St. N. W.; 7 stories; 29.4x99.7 ft.; brick and concrete; steam heat; electric light; cost \$35,000; C. A. Duden & Son, Archts., Corcoran Bldg., Washington. (Noted in April.)

N. C., Asheville.—Merchant & Boyles, Asheville, have contract to erect warehouse; 80x10 ft.; fireproof; cost \$16,500; Wm. J. East, Archt., Asheville.

N. C., Kinston.—Blalock Bros., Kinston, have contract to erect sales warehouse; 23x110 ft.; ordinary construction; tin roof; electric light; Benton & Moore, Archts., Wilson, N. C.

## RAILROAD CONSTRUCTION

### RAILWAYS

Ala., Brewton.—Cedar Lake Mill Co. of Brewton will, it is reported, extend its railroad—which is now being built to Brooklyn—to Andalusia, Ala., 21 mi.

Ark., Columbus.—Rufus S. Stout of Pine Bluff, Ark., says a report, is promoting plan for an electric railway from Columbus to Washington, Ark., about 7 mi., and about 4½ mi. of grade has been built.

Ga., Atlanta.—Plans are being perfected to resume construction of the proposed Atlanta & Carolina Interurban Ry. from At-

lanta to Augusta, about 160 mi. R. E. Church is receiver. Burton Smith, Atty., 1310 Third National Bank Bldg., may give information.

Ga., Atlanta.—Georgia Electric Co. is reported chartered to build electric railways and other public utilities in Georgia; capital stock \$5000; incorporators, B. O. Bittick and W. M. Bennett.

Ky., Barbourville.—M. Posey is locating engineer for the Cumberland Northern R. R. Co., which is preparing to build 25 mi. from Barbourville to Manchester, Ky., and which



## MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

### "WANTS"

**Air Compressor, etc.**—Bureau of Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until May 25 for delivering air compressor, lumber, steel and granite tailings at Navy-yard, Washington; apply for proposals to Bureau.

**Air Compressor.**—Mills & Lupton, 1146 Market St., Chattanooga, Tenn.—Belt-driven air compressor (Ingersoll preferred); capacity about 900 cu. ft. free air with 70 or 80 lbs. pressure; also 150 H. P., A. C., 220-volt, 3-phase, 60-cycle motor.

**Aniline.**—See Bottles (Ink), etc.

**Beams (Iron).**—W. J. Platt & Co., P. O. Box 474, Aiken, S. C.—Iron beams for 2-ft. store front.

**Blowers.**—See Crushers (Rock, Gyratory), etc.—Cobb County Chemical Mining Co.

**Blower.**—Standard Brake Shoe & Foundry Co., F. L. Dilley, Mgr., Pine Bluff, Ark. No. 4 Root or Connersville positive pressure blower; second-hand.

**Blower Sets.**—Bureau of Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until May 25 for delivering forced draft blower sets at Navy-yard, Boston; apply for proposals to navy pay office, Boston, or to Bureau.

**Boats.**—See Tugs, Lighters, etc.—Charles-ton Lighterage & Transfer Co.

**Boiler.**—Geo. J. Adams, 39 South St., corner Old Slip, New York.—350 H. P. B. & W. boiler.

**Bottles (Water).**—P. D. Satchwell, Garrett Bldg., Wilmington, N. C.—Prices on carload lots 5-gal. water bottles.

**Bottles (Ink), etc.**—Standard Ink Co., Box 283, Newbern, N. C.—Addresses of manufacturers of ink bottles, stoppers, pegs for bluing bottles and aniline.

**Brick.**—Office of Sewerage Com., Chas. England, Chmn., 904 American Bldg., Baltimore, Md.—Bids until May 19 to furnish 300,000 manhole bricks; specifications obtainable from Sewerage Com.

**Brick (Buff).**—See Building Material.

**Bridge Construction.**—City Council, St. Jo., Tex.—Bids until June 7 to construct 50-ft. steel or concrete bridge on Williams St. across Elm Creek; D. C. Berry, Chmn. Street Committee.

**Bridge Construction.**—Montgomery County Commrs., Christiansburg, Va.—Bids until May 25 to construct steel bridge 80 ft. long over Tom's Creek; also on about 2291 cu. yds. approach fills, bid on approach to be per cu. yd.; plans and specifications on file at County Clerk's office, Christiansburg, and office State Highway Com., Richmond; further information on application to G. P. Coleman, State Highway Commr., Richmond.

**Bridge Construction.**—Calcasieu Parish Police Jury, C. E. House, Clerk, Lake Charles, La.—Bids until June 1 to construct reinforced concrete arch bridge with double-leaf Strauss trunnion bascule span across Calcasieu River; plans and specifications on file office of Highway Dept. and office of Manufacturers Record; copies obtainable for \$10; F. H. Frankland, Bridge Engr.

**Bridges.**—Bedford County Clerk, Bedford City, Va.—Bids until May 20 to construct 3 bridges; one 100-ft. 1½-in.-long structure, with 12-ft. roadway, across Beaver Dam Creek, 2 mi. from Stewartville; one 119 ft. long, 12-ft. roadway, across Goose Creek, 6 mi. from Thaxton; one 91 ft. 6 in. long, 12-ft. roadway, across Bore Auger Creek, 6½ mi. from Irving; all to have steel superstructures and concrete substructures; plans and specifications at office State Highway Com., G. P. Coleman, Commr., Richmond, Va., and office of Clerk of Circuit Court; blueprints obtainable from Childrey Co., Richmond, at 62 cents and postage per set.

**Bridges.**—Wade H. Massie, Chmn., Washington, Va.—Bids (received at Flint Hill, Va., May 15) to construct bridge across Rappahannock River between Fauquier and Rappahannock counties; superstructure, standard 70-ft. span and approaches; concrete substructure; plans and specifications at offices of State Highway Commission, G.

P. Coleman, Commr., Richmond, Va., and of Clerks of Circuit Courts, Rappahannock (Washington) and Fauquier (Warrenton) counties; blueprints obtainable from Childrey Co., Richmond, Va., at 37 cents and postage.

**Building Materials.**—The Fulton Co., Knoxville, Tenn.—Prices on cement, structural steel, roofing materials and lumber for \$75,000 addition to plant buildings.

**Building Materials, etc.**—W. D. Davis, Tampa, Fla.—Data on building material (except lumber), roofing, tile and tile machinery for floors, steel piling, steam or oil-power pumps for dredging sand and shell, pile driver, cement and lime; also hardware incident to building houses of all sizes, docks, hotel and bathing pavilion; for development of summer and winter resort at Garden City, Hillsborough Bay.

**Building Material.**—Mrs. M. I. Braswell, Lakeland, Fla.—Prices on electrical fixtures, plate glass, composition roofing and buff brick for store building; 60x125 ft., one story.

**Building Supplies.**—See Machinery, etc. Jacob C. Fugh & Co.

**Cables.**—R. L. Beasley, Dothan, Ala.—Interested in 1 to 2 in. best grade cables.

**Camp Outfit.**—W. H. Doty, P. O. Box 611, Savannah, Ga.—Contractors' camp outfit or small portable houses for 6 to 8 men.

**Canning (Kraut) Machinery.**—The Farmers' Corp., A. R. Fishel, Secy., Atkins, Va.—Complete equipment kraut canning machinery.

**Canning Machinery.**—F. E. Crawford, Montbrook, Fla.—Addresses of manufacturers of small canning plants.

**Canning (Vegetable) Machinery.**—G. N. Southwick (Mgr. for J. L. Evans), Winnie, Tex.—Data and prices on vegetable cannery.

**Canning Machinery.**—Reckord Bros., Belair, Md.—Prices on scalders, packers, etc., for tomato and bean cannery.

**Cars (Railway).**—See Rails, etc.—Railroad Construction Co.

**Castings (Steel).**—R. L. Beasley, Dothan, Ala.—Correspondence with manufacturers of steel castings.

**Chimney, etc. (Reinforced Concrete).**—Board of Commrs. of Port of New Orleans, Suite 200, New Orleans Court Bldg., New Orleans, La.—Bids until May 19 to construct tapering reinforced concrete chimney and foundation for cotton warehouses and terminals; plans and specifications at office of Ford, Bacon & Davis, Engrs., 921 Canal St., New Orleans.

**Church Plans.**—R. H. Riedel, Holland, Va.—Plan book on homes and churches.

**Coal.**—Elliott Woods, Supt. U. S. Capitol Bldg. and Grounds, Washington, D. C.—Bids until June 1 to furnish 25,000 tons bituminous coal at Capitol power plant in Garfield Park.

**Concrete Machinery.**—C. P. Bartholomew, E. Central Ave., Orlando, Fla.—Prices and data on machinery and moulds for making artificial concrete stone, etc.

**Concrete Mixer.**—Herman Weber, Beaumont, Tex.—Prices on concrete mixers.

**Conveyors, etc.**—See Tugs, Lighters, etc.—Charleston Lighterage & Transfer Co.

**Contractors' Equipment.**—See Camp Outfit.

**Conveyor (Electrical).**—See Pumps, etc.

**Corn.**—Poblet & Mundet, Muralla 59, Altos, Habana, Cuba.—Correspondence with exporters of corn; view to representation.

**Cotton Shirts.**—Hjalmar Minde, Post Box 184, Bergen, Norway.—Interested in men's full-shirts, with and without wristbands, in colors, including black, at about \$3 to \$6 per doz. Wants sample shirts, perhaps about a dozen from a factory, samples to be paid by C. O. D. If wanted, and to be accompanied by design of patterns; all samples to be 15-16 in. neck width. (Samples at office of Manufacturers Record.)

**Cranes.**—Navy Dept., Bureau of Yards and Docks, H. R. Stanford, Ch., Washington, D. C.—Bids until June 12 for shipbuilding cranes at Navy-yard, Norfolk; plans and specifications on application to bureau or to commandant of navy-yard named.

**Crate Machinery.**—Empire Construction Co., Douglas, Ga.—Addresses of manufacturers of machinery for making crates.

**Crushers (Rock, Gyratory), etc.**—Cobb County Chemical Mining Co., 801 Third National Bank Bldg., Atlanta, Ga.—Gyratory rock crushers, 50 tons capacity per day; cooling, grinding mill and blower.

**Crusher (Rock).**—John R. Smith, Engr., Jasper, Ala.—Data and prices on crusher to crush 25 to 50 cu. yds. rock per day; what horse-power required to operate same, with complete outfit.

**Cutting-Off Machine.**—Navy Dept., Bureau Supplies and Accounts, Samuel McGowan, Paymaster-General, Washington, D. C.—Bids opened June 1 on cutting-off machine, delivery Washington, Sch. 827.

**Drainage System.**—Commrs. New Hanover County Drainage Dist. No. 1, C. Van Leuven, Chmn., Wilmington, N. C.—Bids until May 24 to construct drainage system; 9 mi. canals, averaging depth of 5 ft.; average bottom width, 15 ft.; side slope, 1 to 1; 53,000 cu. yds. excavation; four 55 ft. metal culverts; 10 small wooden bridges; plans and specifications on file with J. L. Beeton, Engr., Wilmington, or secured upon receipt of \$2.50.

**Drainage System.**—Commrs. Court of Colorado County Drainage Dist. No. 1, F. C. Koons, Secy., Eagle Lake, Tex.—Bids until June 1 to construct about 16 mi. drainage canals, aggregating 66,000 cu. yds. excavation; successful bidder to be prepared to pay par and accrued interest for \$17,000 bonds. Address Norris Engineering Co., Wharton, Tex.

**Drill (Radial), etc.**—Bureau of Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until June 8 for delivering mooring bits and radial drill at Navy-yard, Mare Island, Cal.; etc.; apply for proposals to navy pay office, San Francisco, or to Bureau.

**Dryklins (Peas and Beans).**—F. R. Phillips, Marion, La.—Machine to kilm-dry peas and beans.

**Dykes and Revetment.**—Lieut. Col. Herbert Denkyne, U. S. Engr., Kansas City, Mo.—Bids until May 10 for 4200 lin. ft. timber dyke and 9000 lin. ft. revetment; May 20 for 5900 and 2250 lin. ft. timber dyke and 12,000 lin. ft. revetment; May 24 for 5500 and 1000 lin. ft. timber dyke and 5000 lin. ft. revetment.

**Electric Motor.**—Mills & Lupton, 1146 Market St., Chattanooga, Tenn.—150 H. P., A. C., 220-volt, 3-phase, 60-cycle motor. (See Air Compressor.)

**Electrical Fixtures.**—L. T. Bryan, Sanford, Fla.—Prices on electrical fixtures for dwelling.

**Electrical Fixtures.**—See Building Material.

**Electric Plant Equipment.**—Robertson County Light & Power Co., W. R. Bethel, Gen. Mgr. Mt. Olive, Ky.—Prices on switch-board or panel, copper and other materials for electric plant of 60 H. P. development and 8500 ft. transmission.

**Electrical Machinery.**—T. O. Slaughter, Waynesboro, Miss.—Catalogues and prices on electric motors.

**Elevator (Electric).**—Franklin Furniture Co., Clay, Ky.—Two-ton electric elevator for warehouse; voltage 110, 60-cycle, single phase.

**Engine.**—See Engine and Boiler.—G. N. Southwick.

**Engine (Gasoline), etc.**—L. T. Bryan, Sanford, Fla.—2 H. P. gasoline engine and pump for water supply.

**Engine (Oil).**—W. H. Bruner, care W. H. Bruner Lumber Co., Mobile, Ala.—Good second-hand oil engine, 20 or 25 H. P.; prefers Fairbanks-Morse, type Y, not more than 2 or 3 years used; located within reasonable distance of Mobile.

**Engine and Boiler.**—G. N. Southwick (Mgr. for J. L. Evans), Winnie, Tex.—Prices on 15 H. P. boiler and 10 H. P. engine.

**Fiber Machinery.**—Chas. R. Fife Co., 1012 Central National Bank Bldg., St. Louis, Mo.—Machinery for recovering fiber from vegetable growth.

**Fishing Tackle.**—Fred W. Doss, Moscow, Russia.—Addresses of manufacturers of fishing tackle and hooks.

**Foundation (Concrete).**—See Chimney, etc.

**Gas Producer.**—The Fulton Co., Knox-

contemplates a further extension to Beattyville, Ky., about 30 mi.

**Mo., Mexico.**—Chicago, Burlington & Quincy R. R. Co. is reported to have completed surveys for considerable new construction (100 miles or more), which, in connection with its existing lines, would make a direct route from St. Joseph to Mexico and thence to Paducah, Ky. T. E. Calvert, Chicago, is Ch. Engr.

**Miss., Yazoo City.**—Organization of the Yazoo Southwestern Ry. Co. to build a line about 62 mi. long from Yazoo City to Carthage, Miss., has been authorized by the Governor. Walter C. Murphy of Chicago (present address the Swayze House, Yazoo City), T. P. McDonough and William Kiscock of the same city also interested.

**N. C., Andrews.**—Grading on the Hiwassee Valley Ry. from Andrews via Peachtree to Hayesville, N. C., 25 mi., is 75 per cent. completed. Proposed to go to Hiwassee, 10 mi. more. Wright-Johnstone Contracting Co., Andrews, is contractor. F. Cloud is Ch. Engr. and O. L. Anderson Pres. of the line. H. S. Klunnebrew has charge of construction.

**Okla., Cushing.**—Oil Fields & Santa Fe Ry. Co., recently chartered in the interest of the Santa Fe System to build a 15-mi. line, has acquired the Oil Belt Terminal R. R. out of Jennings and the Cushing Traction Co.'s line and will complete and connect them for service to and from the oil fields at Drumright and other places. About 9 mi. of line remain to be constructed. C. F. W. Felt is Ch. Engr. Santa Fe System at Chicago.

**Okla., Sapulpa.**—C. N. Haskell of Tulsa, Okla., proposes to build a railroad from Sapulpa to the Cushing oil fields.

**Tex., Galveston.**—Gulf, Colorado & Santa Fe Ry. announces that the company during April determined upon betterments to its lines in Texas amounting to \$267,688, most of it for track materials (not ties and rails), bridges, trestles, culverts, ballast and grading; F. G. Pettibone is V.-P. and Gen. Mgr. at Galveston.

**Tex., Lamesa.**—T. J. O'Donnell of Sweetwater, Tex., and W. L. Carville of Dallas, Tex., are reported promoting plans for the construction of a railroad from Lamesa southward to Midland, Tex., about 55 mi.

**Tex., Longview.**—Red River & Gulf Ry. Co., capital \$75,000, has filed charter, with headquarters at Longview, to build a line from ere mines in Marion county, the terminus of the Port Bolivar Iron Ore Ry., northward to the Red River southeast of Hugo, Okla., about 75 mi.; incorporators, T. C. Morgan, G. A. Bodenheim, R. N. Kelly, C. F. Miles, J. C. Turner, L. L. Featherstone and L. P. Featherstone, all of Longview; Joseph A. Bradford and R. N. Taylor of Dalingerfield, and W. D. Myers of Houston, Tex.

**Tex., Palestine.**—A bill has been reported favorably in the Legislature for the construction of an extension of the Texas State R. R. from Palestine via Corsicana to Dallas, Tex., about 90 mi. Headquarters are at Palestine and C. H. Hurdleston is Mgr.

**Tex., Roby.**—Roby & Northern R. R. Co., capital \$10,000, is chartered to build a line from Roby to North Roby, 5 mi., to connect with the Texas Central Ry. G. L. White is Pres.; L. C. Eastland, V.-P. and Gen. Mgr., both of Hillsboro, Tex.; J. McWhirter, Secy.; O. C. Walker, Treas.; L. H. McCrea, Gen. Counsel; all of Roby. Other directors are W. R. Timmins, C. N. Hutto and J. C. Hlibren of Roby, George Sturgis and George F. Beavers of Hillsboro. Headquarters at Roby.

**W. Va., Parkersburg.**—The Parkersburg, Marietta & Interurban Ry. Co. contemplates improvements amounting to \$500,000 or more. R. D. Camden is Pres. and H. H. Archer, Gen. Mgr.

**W. Va., Webster Springs.**—The West Virginia Midland R. R. Co., it is reported, will convert its line from narrow to standard gauge. Line is 30 mi. long from Webster Springs to Holly Junction. Geo. A. Hechmer is Gen. Mgr. at Palmer, W. Va.

### STREET RAILWAYS

**Ark., Fort Smith.**—Fort Smith Light & Traction Co. will spend \$60,000 for reconstruction of lines, including a reduction of grade. This will include line to Arkoma. H. C. Hoagland is Gen. Mgr.

**Tex., Cleburne.**—Cleburne Street Ry., 6 mi. long, has been bought at auction by John W. Floore, Sr., owner of the mortgage, and he will improve and operate it.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

ville, Tenn.—May need gas-producer plant of naphtha type.

**Grinding Mill.**—See Crushers (Rock, Gyratory), etc.—Cobb County Chemical Mining Co.

**Hair (Plastering).**—McNamroch Builders' Supply Co., Greensboro, N. C.—Addresses of wholesale dealers in plastering hair.

**Hammer (Steam).**—Bureau of Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until May 25 for delivering steam hammer at Navy-yard, Norfolk; apply for proposals to Navy pay office, Norfolk, or to Bureau.

**Hardware.**—See Manufactured Products, Marques & Co.

**Hardware.**—See Building Materials, etc. W. D. Davis.

**Heating (Hot Water).**—O. G. Williamson, Federalburg, Md.—Hot-water heating plant for \$2000 store.

**Heating Equipment (Hot Air).**—R. H. Riedel, Holland, Va.—Prices on hot-air furnace and equipment for church building.

**Holists (Spur Geared).**—Navy Dept., Bureau Supplies and Accounts, Samuel McGowan, Paymaster-General, Washington, D. C.—Bids opened June 1 on 8 spur-geared holists, delivery Washington, Sch. 8273.

**Houses (Portable).**—See Camp Outfit.

**Ice Machinery.**—Warren & Goin, Gainesville, Fla.—Want (for client) prices on second-hand 15 to 30-ton ice machine in first-class condition; for quick delivery.

**Ice and Refrigerating Machinery, etc.**—Panama Canal, F. C. Boggs, Gen. Purchasing Officer, Washington, D. C.—Bids until May 27 to furnish ice and refrigerating plant, motor-driven lathes, drill presses, shapers and sensitive drills, galvanized ridge roll, wire lath, rivets, bolts, nuts, washers, nails, sheet brass, valves, compression grease cups, oil cups, rubber bands, rulers, Manila tags, zinc sulphate, lumber and switch ties; blanks and general information relating to this circular (No. 924) may be obtained from this office or offices of assistant purchasing agents, 24 State St., New York; 614 Whitney-Central Bldg., New Orleans, and 1086 North Point St., San Francisco; also from U. S. Engr. offices in Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, Chicago, St. Louis, Detroit, Milwaukee, St. Paul, Chattanooga, Louisville, Mobile, Galveston, Seattle and Los Angeles; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill.; Commercial Club, Tacoma, Wash., and Chamber of Commerce, Portland, Ore.

**Iron Work.**—See Tools (Carpenters).—Fred W. Doss.

**Knitting Machines.**—S. M. Scott, Pinnacle, N. C.—Data and prices on knitting machines.

**Lathe (Engine).**—Navy Dept., Bureau Supplies and Accounts, Samuel McGowan, Paymaster-General, Washington, D. C.—Bids opened June 1 on engine lathe, delivery Washington, Sch. 8273.

**Lathe.**—Gaston Champagne, 18 Rue de Belzunce, Paris.—Parallel lathe; to be electrically operated under continuous current of 120 volts; machine to be 300 millimeters long from end to end, and 150 millimeters high. Send price, design and general description; also state time of delivery, terms free at Marseilles, no charge for packing.

**Lathes, etc.**—Bureau of Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until May 25 for delivering hinges, lathes and locks at Navy-yard, Charleston, S. C.; apply for proposals to navy pay office, Charleston, or to Bureau.

**Lathes (Handle).**—Empire Construction Co., Douglas, Ga.—Addresses of manufacturers of handle lathes.

**Lighting, Plumbing and Water Systems.**—G. N. Southwick (Mgr. for J. L. Evans), Winnie, Tex.—Data and prices on lighting system for 20-room hotel; also plumbing system with septic tanks, and pressure water system.

**Loading (Sand) Equipment.**—J. R. Hime Sand Co., Box 827, Atlanta, Ga.—Data and prices on complete sand-loading outfit, overhead cable, with  $\frac{3}{4}$  to 1-yd. capacity excavator, steam or gasoline hoist; f. o. b. Junction City, Ga.

**Locomotive.**—Navy Dept., Bureau Supplies and Accounts, Samuel McGowan, Paymaster-General, Washington, D. C.—Bids opened June 1 on electric locomotive; combination trolley and storage battery; delivery Portsmouth, Va.; schedule 8274.

**Machinery, etc.**—Jacob C. Pugh & Co., Engr. and Contr., 636 New Monroe Bldg., Norfolk, Va.—Correspondence with manufac-

turers of machinery, pumps, mechanical equipments, building supplies and specialties, with view to representation in Virginia, West Virginia, North and South Carolina, Georgia and Florida.

**Manufactured Products.**—Marques & Co., Paseo Sagasta 24, Zaragoza, Spain.—Interested, with view to representation, in following: Wire, nails, commercial iron, sheet metal of all kinds, oil and lubricating grease, etc., and in general line of goods and products for industries and agriculture.

**Manufactured Specialties.**—Santos & Mosquera, Plaza de San Ildefonso, 6, Madrid, Spain.—Interested, view to representation, in new inventions and small articles of general utility, supplies for the counting-room and the writing desk, jewelry, etc.

**Mechanical Equipments.**—See Machinery, etc.—Jacob C. Pugh & Co.

**Metals.**—See Manufactured Products.—Marques & Co.

**Metal Work.**—Richman Construction Co., Moorestown, N. J.—Bids on metal work on \$40,000 hospital at Easton, Md.

**Mills (Cane Syrup, Kraut, Grist).**—G. N. Southwick (Mgr. for J. L. Evans), Winnie, Tex.—Data and prices on cane syrup, kraut and grist mills.

**Motors (Automobile).**—R. L. Beasley, Dothan, Ala.—20 to 30 and 40 H. P. automobile motors, mounted on steel I beams

and specifications on file with City Engr.; John B. Marshall, Mayor.

**Paving.**—Baltimore (Md.) Board of Awards, City Hall.—Bids until May 19 to pave Patterson Park Ave. from North Ave. to Clifton Park with sheet asphalt; contract No. 129; 1550 sq. yds.; specifications obtainable for \$5 from Comms. for Opening Streets, John L. Sanford, Prest., City Hall, where plans and profiles are on file.

**Paving.**—Baltimore (Md.) Board of Awards, John Hubert, Acting Prest.—Bids, care of City Register, City Hall, until May 19 to grade, curb and pave with sheet asphalt and granite block, on concrete base, the following: Contract No. 115—3060 sq. yds. sheet asphalt, 725 sq. yds. granite block repaving and 455 sq. yds. wood block, on Holliday and Fayette Sts.; contract 116—3390 sq. yds. granite block repaving on Philpot, Block, Wills, Bethel and Sharp Sts.; contract 117—6490 sq. yds. granite block paving on Pratt St.; amounts approximate; specifications, etc., on application office of Paving Com., R. Keith Compton, Chrmn. and Consult. Engr., City Hall.

**Paving.**—City Comms., Huntington, W. Va.—Bids until May 21 to grade, curb and pave with vitrified brick following streets: 23d St., 8th to 10th Aves.; 1st Ave., 26th to 28th Sts.; Guyan Ave., 26th to 28th Sts.; Cedar St., Norway to Oney Aves.; Oney Ave., Cedar to Davis Sts.; Davis St., Spring-

**Pipe.**—Carpenter, Taylor & Co., Ruth, N. C.—1000 ft. 2-in. second-hand pipe.

**Pipe.**—Southern Sand & Gravel Co., Fredricksburg, Va.—500 lin. ft. 12-in. diam. pipe for carrying waste water mixed with some sand; quote prices, cash, f. o. b. Manassas, Va., giving full details as to kind, condition, etc.

**Pipe (Cast-iron).**—Shoop-Withers Co., 833 Washington St., Suffolk, Va.—2500 ft. 6-in. second-hand cast-iron water pipe.

**Piping, Tanks, etc.**—Temple Thrall Oil Co., care D. G. Wilson of City National Bank, Temple, Tex.—Will need piping, tanks, etc.

**Piping (Wrought Iron).**—The Fulton Co., Knoxville, Tenn.—May need 2 or 3 carloads wrought-iron piping.

**Plate Glass.**—See Building Material.

**Portable Houses.**—Box 508, St. Petersburg, Fla.—Prices (from manufacturers or representatives in Florida, Georgia and Alabama preferred) on "cut-to-measure houses."

**Pump (Triplex).**—Carpenter, Taylor & Co., Ruth, N. C.—Triplex pump; about 24; second-hand.

**Pumps.**—See Building Materials, etc.—W. D. Davis.

**Pumps.**—See Machinery, etc.—Jacob C. Pugh & Co.

**Pumps (Centrifugal).**—W. M. Case, Supt., Humboldt Water & Power Plant, Humboldt, Tenn.—Prices on electrically-driven centrifugal pumps.

**Pumps, etc.**—City of Houston, Tex., Ben Campbell, Mayor.—Bids until May 21 for following: Deep well pump complete with electric motor; centrifugal or turbine fire pump complete with electric motor; electrically operated conveyor for municipal wharf; proposal sheets, specifications, etc., obtainable from E. E. Sands, City Engr.

**Pumps (Steam).**—Saml. T. Williams, Engr., 223 N. Calvert St., Baltimore, Md.—Two pulsometer steam pumps, No. 7 or 8, for immediate delivery.

**Pump (Water).**—L. T. Bryan, Sanford, Fla.—See Engine (Gasoline.)

**Pumping Plant.**—Harris County Commissioners, H. L. Washburn, County Auditor, Houston, Tex.—Bids until May 17 for gasoline engine and pump set up complete at Harris County School for Girls; plans and specifications on file.

**Rails, etc.**—Railroad Construction Co., 80 5th Ave., New York.—Rails and equipment.

**Refrigeration.**—Pineville Cream Co., Pineville, Ky.—Data and prices on refrigeration for ice-cream and dairy plant; capacity about 600 gals. daily.

**Refrigerating Equipment.**—O. Klinger, Riverdale, Md.—Prices on cold-storage plant.

**Refrigerating Machine.**—Geo. J. Adams, 39 South St., corner Old Slip, New York.—15-ton steam-driven refrigerating machine.

**Road Construction.**—Lake County Comms., Dist. No. 4, M. V. Simpson, Commr., Tavares, Fla.—Bids until June 7 to construct roadways system; about 96,373 lin. ft. roadway, 25,988 cu. yds. excavation, 112,024 sq. yds. modified asphalt pavement, 7 bridges to be raised, 50 12-in. drains, 1902 cu. yds. concrete, 500 lbs. steel; plans and specifications at offices County Clerk and J. B. McCrary Co., Engr., 1408 Third National Bank Bldg., Atlanta, Ga.

**Road Construction.**—Davidson County Road Comms., Lee V. Phillips, Secy., Varner Bldg., Lexington, N. C.—Open bids May 15 to construct sand-clay roads; information at office R. T. Brown, County Road Engr., Lexington.

**Road Construction.**—Queen Anne's County Comms., Centerville, Md.—Bids until May 11 to construct a cation State-aid highway upon or along Chester Rd. between Stevensville and Phillips Corner, 1.44 mi.; bids to be made on blank forms obtainable from State Roads Com., 601 Garrett Bldg., Baltimore; plans can be seen and specifications obtainable for \$1 at office State Roads Com.

**Road Construction.**—Calcasieu Parish Police Jury, E. C. House, Clerk, Lake Charles, La.—Bids until June 1 to grade and gravel about 2 mi. road from intersection Ryan and Alvin Sts., Lake Charles, to south end proposed Calcasieu River Bridge; Fred Shotts, Parish Engr.

**Road Construction.**—Hardin County Comms., Court, Kountze, Tex.—Bids until May 24 for clearing and grubbing earthwork, concrete arches, culverts, furnishing and laying shell, rock or gravel, etc., in construction of highways in Road Dist. No. 1;

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**Office Furniture and Supplies.**—Ekra, 32 Karpowka, Petrograd, Russia.—Interested in novelties in office furniture and supplies.

**Office Supplies.**—See Manufactured Specialties.—Santos & Mosquera.

**Oils.**—See Manufactured Products.—Marques & Co.

**Painting.**—Richman Construction Co., Moorestown, N. J.—Bids on painting for \$40,000 hospital building at Easton, Md.

**Partitions (Rolling).**—R. H. Riedel, Holland, Va.—Prices on rolling partitions for church.

**Paving.**—J. R. Jones, Chrmn. Street Committee, Petersburg, Va.—Bids until May 15 to construct 3000 yds. asphaltic concrete roadway paving on N. Union St.; specifications obtainable from R. D. Budd, City Engr.; P. G. Bunting, Clerk.

**Paving.**—Board of Public Works, Roger G. McGrath, Secy., Louisville, Ky.—Bids until May 29 to pave Dupuy St. from Adair to Kentucky St. and from Caldwell to Adair St., and Howard St. from 18th to 20th St.; plans and specifications on file with Board of Public Works.

**Paving.**—C. P. Ballenger, City Engr., Greenville, S. C.—Bids until May 14 to construct about 70,000 sq. yds. street paving, 20,000 sq. yds. sidewalk paving, 25,000 lin. ft. granite curbing, 10,000 lin. ft. combination cement curb and gutter, necessary storm sewers, catch basins, manholes, etc.; plans

dale Ave. to Smith St.; Springdale Ave., Davis to Sycamore Sts.; Sycamore St., Norway to Springdale Aves.; alley between 8th and 9th Aves. from 8th to 9th Sts.; alley between 6th and 7th Aves. from 4th to 5th Sts.; plans, specifications, etc., on file with A. B. Maupin, City Engr.; L. A. Pollock, Commr. of Streets, Sewers, etc.

**Paving.**—Board of Public Works, J. W. Layne, Secy., Lake City, Fla.—Bids until May 31 to pave certain streets; contemplated cost \$20,000; all standard paving surfaces considered; information, forms, etc., on application and \$1; A. S. Miller, Engr.

**Paving and Sewers.**—Board Aldermen, Clarksville, Tex.—Bids until May 31 on following paving and sewer improvements: 5112 cu. yds. excavation for grading, 13,531 sq. yds. vertical fiber brick pavement on concrete base, 7230 sq. yds. asphalt macadam pavement, 1897 sq. yds. concrete pavement, 8410 lin. ft. plain concrete curb, 7068 lin. ft. combined concrete curb and gutter, 305 lin. ft. 10-in., 60 ft. 12-in., 44 ft. 15-in. and 370 ft. 18-in. vitrified pipe sewers, etc.; plans and specifications on file office City Clerk, John Webb, and obtainable from Engr., E. F. Petersen, Muskogee, Okla., for \$15.

**Pegs.**—See Bottles (Ink), etc.

**Piling (Steel).**—W. D. Davis, Tampa, Fla.—Prices on steel piling.—See Building Materials, etc.

**Pile Driver.**—W. D. Davis, Tampa, Fla.—Data and prices on pile driver.—See Building Materials, etc.



plans, specifications, bidding blanks, estimates, etc., obtainable from Wm. Bradburn, Engr., Sour Lake, Tex.; W. W. Dies, County Judge.

**Road Construction.**—Permanent Road Comms., District No. 1 of San Patricio County, Gregory, Tex.—Bids until May 21 to construct system of highways, including bridges, culverts, drainage canals and approach to Corpus Christi causeway; each bidder to furnish 2 proposals, one conditioned upon bidding for \$50,000 bond issue at not less than par and accrued interest; other on cash basis; plans and specifications on file at First National Bank, Gregory, office of H. C. Bourland, Portland, and of Bartlett & Ranney, Inc., Consult. Engrs., Chandler Bldg., San Antonio, and Commonwealth Bldg., Dallas, Tex.; extra sets furnished for \$5.

**Road Machinery.**—R. L. Beasley, Dothan, Ala.—Interested in road machinery; view to agencies.

**Roofing Materials.**—Dept. of Justice, Office Supt. of Prisons, F. H. Duehay, Washington, D. C.—Bids until June 7 to furnish at U. S. Penitentiary, Atlanta, Ga., for west main cell wing the following: Cupola, ridges, roofing felt, pitch, elastic cement, sheet copper and slating nails; specifications on application.

**Roofing (Composition).**—See Building Material.

**Saws, etc.**—Bureau of Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until May 25 for delivering at Navy yard, Brooklyn, naval supplies as follows: Watch mark braid, brass, copper, sheet cork, grinder, white cotton line, band resaw, band and cut-off saws and parts, cotton sheeting, steel hand trimmer; apply for proposals to navy pay office, New York, or to Bureau.

**Sawmill.**—Coosa River Mills, Gadsden, Ala.—Prices on small band sawmill, etc.

**Screens.**—L. T. Bryan, Sanford, Fla.—Prices on screens for dwelling.

**Sewer Construction.**—See Paving and Sewers.—Board Aldermen, Clarksville, Tex.

**Sewer Construction.**—Baltimore (Md.) Board of Awards.—Bids until May 19 to construct storm-water drains, contract No. 44, and Dist. 46 trunk sewer, sanitary contract No. 152. Contract No. 44 calls for 7300 lin. ft. 30-in. to 63-in. masonry drain, 16,660 lin. ft. 12-in. to 24-in. vitrified pipe drain, 5390 lin. ft. 12-in. to 18-in. inlet connection, 125 manholes, 248 inlets. Contract No. 152—10,150 cu. yds. earth and rock excavation, 5600 lin. ft. 27-in. sewer. Specifications and plans obtainable from Harry W. Rodgers, Secy. Sewerage Com., and on file with Calvin W. Hendrick, Ch. Engr. of Com.

**Sewer Construction.**—City Comms., Huntington, W. Va.—Bids until May 21 to construct sewer in alley between 6th and 7th Aves. from 10th to 11th Sts. with 15-in. vitrified tile, and in alley south of 7th Ave. from 10th to 11th Sts. with 12-in. vitrified sewer tile; plans, specifications, etc., on file with A. B. Maupin, City Engr.; L. A. Pollock, Commr. of Streets, Sewers, etc.

**Sewage Disposal.**—J. B. Moffett, Sanitary Commr., Homestead, Fla.—Correspondence relative to placing contract for sewage disposal system; will furnish information as to area, land formation, etc.; visits of personal representatives not desired at present, but correspondence only.

**Shoes.**—G. N. Southwick (Mgr. for J. L. Evans), Winnie, Tex.—Prices on 8 30-ton shoes.

**Steel and Tubing.**—Bureau of Supplies and Accounts, Navy Dept., Washington, D. C.—Bids until May 25 for delivering steel and steel tubing at naval torpedo station, Newport, R. I.; apply for proposals to navy pay office, Newport, or to Bureau.

**Stoppers (Bottle).**—Harris & Fawkes Mfg. Co., Jeanerette, La.—Addresses of manufacturers of corks or stoppers, with attached wire and sponge or swab, for shoe-dressing bottles.

**Structural Steel.**—See Building Materials.—The Fulton Co.

**Tank (Oil).**—L. A. Washington, Commr., Public Works, City Hall, Paducah, Ky.—Second-hand tank, 6000 to 8000 gals. capacity, for storage of road oil; tank in vicinity of Paducah preferred.

**Tanks.**—See Piping, Tanks, etc.—Temple-Thall Oil Co.

**Tile (Cement Roofing).**—Panama Canal, F. C. Boggs, Gen. Purchasing Officer, Washington, D. C.—Bids until May 28 to furnish or furnish and erect cement roofing tile; blanks and general information relating to this circular (No. 925) may be obtained from this office or offices of assistant pur-

chasing agents, 21 State St., New York; 614 Whitney-Central Bldg., New Orleans; and 1086 North Point St., San Francisco; also from U. S. Engr. offices in Seattle, Los Angeles, Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, Chicago, St. Louis, Detroit, Milwaukee, St. Paul, Chattanooga, Louisville, Mobile and Galveston; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill., and Commercial Club, Tacoma, Wash.

**Tile (Floor).**—Herman Weber, Beaumont, Tex.—Prices on floor tile for court-house.

**Tools (Carpenters).**—Fred W. Doss, Moscow, Russia.—Addresses of manufacturers of tools for carpenters; also of iron works.

**Tractors (Gasoline).**—Clark & Co., Contr. Richlands, Va.—Data and prices on heavy gasoline tractors for lumber hauling, mountainous country.

**Tugs, Lighters, etc.**—Charleston Lighterage & Transfer Co., J. M. Whitsitt, Prest., Charleston, S. C.—Prices on tugs, lighters, stevedoring equipment, conveyors, etc.

**Veneer (Bass Wood).**—F. H. Beards, Box 679, Hamlet, N. C.—Correspondence with manufacturers of bass wood veneer; 3-ply; sheets 20x40 in., 1/2 in. thick.

**Vinegar Plant.**—G. N. Southwick (Mgr. for J. L. Evans), Winnie, Tex.—Data and prices on vinegar plant.

**Window Curtain Machinery.**—Ekra, 32 Karpowka, Petrograd, Russia.—Interested in machinery for making window curtains; later will want machinery for manufacturing other kinds of curtains.

**Wire Goods.**—E. J. Barnette, 61 Gage Ave., Union, S. C.—Addresses of manufacturers of wire goods and specialties; view to placing work.

**Wiring.**—E. B. Cline, City Auditor, Tulsa, Okla.—Bids opened May 13 to furnish all labor, tools and materials for wiring at water-works auxiliary station; plans and specifications on file with and obtainable from City Auditor.

**Woodworking Machinery.**—See Crate Machinery and Lathes (Handle).—Empire Construction Co.

**Woodworking Machinery.**—Johnson City Lumber & Mfg. Co., Johnson City, Tenn.—Estimates on rim benders, planers, moulders, band sawmill, hand jointers, band rip saw, circular rip saws, swing cut-off saws, multiple spindle boring machine, saw and knife-grinding machinery, hoisting engine without boiler, automatic spoke machinery, shaving exhaust blower system; fellow planers and 200 H. P. steam plant.

**Woodworking Machinery.**—T. O. Slaughter, Waynesboro, Miss.—Catalogues and prices on cut-off, scroll and rip saws; also lathes and motors.

**Woodworking Machinery.**—Ronda Coop & Egg Case Co., Ronda, N. C.—Light planer and matcher; second-hand.

### Food Crops Conference.

The Carolina-Georgia Foodcrops Conference will hold a one-day session in Augusta Saturday, May 15, under the joint auspices of the Georgia Chamber of Commerce, the Commissioner of Agriculture of South Carolina and the Merchants and Manufacturers' Association of Augusta. Charles J. Haden, president of the Georgia Chamber of Commerce, will preside. It is expected that the merchants of the territory will be induced to prepare for handling foodstuffs, particularly grain and hay, by buying corn-shellers and putting in hay presses, the latter to be moved from farm to farm as needed; also that the bankers and landowners will devise plans for financing the farmers in growing crops and for co-operating with the merchants who buy them from the farmers in financing the harvested products.

## FINANCIAL NEWS

### FINANCIAL CORPORATIONS

Ark., Pine Bluff.—National Bank of Arkansas Incptd.; capital \$100,000; surplus \$10,000; incorporators, R. Carnahan, R. H. Stearns, C. K. Triplett and C. H. Triplett, Jr., Pine Bluff; L. W. Clement, England, Ark. Business is to begin about July 1.

Fla., Jacksonville.—Southern Trust Co. has made application for charter; capital \$300,000; surplus \$50,000; directors, Charles R. Rudisill, Prest.; R. C. Middleton, 1st V.-P.; A. E. Adamson, 2d V.-P.; J. S. Peterson, Treas., and Walter J. Bryson.

Fla., Sutherland.—A new bank is to be organized, it is reported, by Louis B. Leach of Wamego, Kans.

Ga., Athens.—Guaranty Investment & Loan Co. is to be incptd.; capital \$50,000; organizers, R. S. Freeman, Baltimore; J. J. Wilkins, E. S. Wilkins, T. C. Dunlap, C. H. Philizy and J. W. Smith, Athens. Business is to begin soon.

Md., Frederick.—Fidelity Building & Loan Assn. of Frederick county has filed articles of incorporation; Noah E. Cramer, James H. Gambrill, John T. White and William T. Delaplaine, incorporators.

N. C., Ayden.—Farmers and Merchants' National Bank has made application to organize; capital \$35,000.

N. C., Raleigh.—Raleigh Fire Insurance Co. of Raleigh is organized with \$50,000 capital; incptrs., G. H. Dortch, Jos. B. Cheshire, Jr., G. H. Andrews, W. L. Brogden, V. O. Parker, D. F. Fort, Jr., H. J. Harvey, A. L. Baker, Dan Allen and J. A. Scott.

S. C., Orangeburg.—Merchants' Bank Check Corp. is organized with W. A. Livingston, Prest.-Secy.; H. C. Wannamaker, Treas.

S. C., Brunson.—People's Bank is chartered; capital \$25,000; James E. Peurifoy, Prest.; W. J. Holladay, V.-P., and J. W. Campbell, Secy. and Treas. Business began May 5.

Tenn., Friendsville.—People's Bank has begun business; A. B. Ritchie, Prest.; J. H. Brient, Jr., V.-P.; O. L. DeFoe, Cashr.

Tenn., Nashville.—Guaranty Title Trust Co. is organized with \$600,000 capital to succeed the Security Title Co.; organizers, Percy Warner, A. M. Shook, E. A. Price, Edwin Warner and J. O. Leake. The new company has purchased the Security Title Co.

Tex., Abilene.—Regarding reported organization of new bank in Abilene, E. B. Bynum, Prest. First State Bank & Trust Co., writes that his bank proposes to segregate and make two institutions, one a commercial bank with \$100,000 capital and \$15,000 surplus, and the other a trust company with like capital and surplus. The two institutions will be under the same management and in the same building.

Va., Norfolk.—The Church Street Bank, capital \$50,000, has elected the following officers: Ben Margolius, Prest., and Nathan Metzger, Cashr., both of Norfolk; George W. Truitt, Jr., of Suffolk, V.-P.; directors, C. H. Consolvo, W. J. Cote, E. H. Cunningham, E. J. Doran, E. J. Hecht, Charles M. Mansbach, Joseph W. Martin, D. L. Margolius, Aleck A. O'Brien, Joseph C. Prince and F. M. Sutton.

Va., Portsmouth.—Portsmouth Savings & Loan Corp. is chartered; capital \$20,000 to \$50,000. R. J. Davis is Prest., Portsmouth; Robert H. Quale, Secy., Norfolk.

W. Va., Ridgeley.—Ridgeley State Bank is being organized. L. P. Walker of St. Marys, W. Va., will probably be Prest. R. A. Radcliff, Knobley St., Ridgeley, is said to be interested.

### NEW SECURITIES

Ala., Dadeville.—\$14,000 6 per cent. 10-year water-works bonds recently voted have been sold. H. E. Berkstresser is Mayor.

Ala., Irondale.—Steps are being taken to call an election to vote on \$20,000 municipal school-building bonds. H. C. Gore is Mayor.

Ala., Montgomery.—\$102,000 of 5 per cent. 10-year \$1000 street-improvement bonds are to be issued; dated Jan. 1, 1915; maturity 1925. J. T. Litcher is Chrmn. of Finance.

Ala., Vernon.—\$50,000 5 per cent. 1-30-year Lamar county road-improvement bonds have been purchased by Otto Marx & Co., Birmingham.

Ark., Helena.—\$350,000 6 per cent. 24-year bonds Cotton Belt Levee Dist. No. 1 were purchased by Hibernia Bank & Trust Co., New Orleans.

Ark., Mt. Ida.—Election is to be held to vote on \$10,000 of bonds of Liberty School Dist. No. 12, Montgomery county. Address Board of Trustees.

Fla., DeLand.—Election is to be held June 8 to vote on \$400,000 road and bridge bonds Comms.' Dist. No. 4, Volusia county. Address Board of County Comms.

Fla., Eustis.—Election will probably be held within 60 days to vote on municipal improvement bonds. Address The Mayor.

Fla., Ft. Myers.—\$300,000 Lee county road and bridge bonds were voted May 1 and bids for \$175,500 of road bonds are being received. H. A. Hendry is County Clerk.

Fla., Fort Pierce.—All bids received Apr. 26 for \$10,000 6 per cent. 10-year \$500 street bonds were rejected and new bids are asked until 5 P. M. June 7. H. B. Paxton is City Clerk.

Fla., Fort Pierce.—\$25,000 6 per cent. 10-20-year \$1000 bonds Special Tax School Dist. No. 14 have been purchased by Terry, Briggs & Slayton, Toledo, O., at \$50 premium. G. A. Saeger is Chrmn. Board of Public Instruction.

Fla., Green Cove Springs.—Election is to be held May 18 to vote on \$450,000 Clay county road bonds. C. A. Budington is Chrmn. County Comms.

Fla., Palmetto.—It is proposed to hold an election in Palmetto School Dist. to vote on \$50,000 school bonds. C. E. Haley is Chrmn. School Board. Chas. Dennett is Mayor.

Fla., Perry.—Bids will be received until noon June 7 by Board of Public Instruction of Taylor County, F. S. Jackson, Secy., for \$16,000 6 per cent. county school warrants in denomination of \$100 to \$5000. J. M. Sheffield is Chrmn. Further particulars will be found in the advertising columns.

Fla., Jasper.—Comms. of Hamilton County will be petitioned to call an election to vote on \$100,000 road bonds. E. C. Horne is member Board of Comms.

Fla., Madison.—Election is to be held June 1 to vote on \$10,000 municipal refunding bonds. R. H. Rowe is Mayor.

Fla., New Smyrna.—Bids will be received until 7.30 P. M. June 1 by Geo. H. Crane, Secy. Board of Public Works, for \$63,000 6 per cent. water, sewer and funding bonds; dated Feb. 1, 1915; denomination \$1000; maturity 1925 to 1945, inclusive.

Fla., Seabreeze.—Election is to be held June 15 to vote on \$50,000 bonds Special Tax School Dist. No. 41. Address Bd. of Trustees, Public Instruction.

Fla., Starke.—An ordinance has been prepared providing for an issue of \$26,000 sewer and \$16,000 paving bonds. C. A. Futch is City Clerk.

Fla., St. Augustine.—Bids will be received until June 8 for \$12,500 6 per cent. 10-year Special Drainage Dist. bonds. W. Wallace Snow is Clerk, Board of County Comms., St. Johns County.

Fla., St. Petersburg.—Election to vote on \$105,000 6 per cent. 25-year Special School Tax Dist. No. 3, St. Petersburg, Pinellas county, school bonds is to be held June 1. Dixie M. Hollins is Supt. and Secy. Board of Education, Pinellas county, at Clearwater, Fla.

Fla., Winter Park.—\$12,000 7 per cent. 1-14-year \$500 bonds are voted for following purposes: City hall and jail, \$2000; street paving, \$10,000. Address Town Council, W. C. Temple, Mayor.

Ga., Alma.—\$15,000 5 per cent. 20-year \$500 water-works bonds have been purchased at \$14.50 net by C. H. Coffin, Chicago. W. L. Thompson is Mayor.

Ga., Albany.—City Council has adopted ordinance providing for the issuing and sale through the Mechanics and Metals National Bank, New York, of \$40,000 site purchase and school building and \$40,000 municipal auditorium 5 per cent. 30-year bonds.

Ga., East Lake.—\$30,000 5 1/2 per cent. 20-year school, water, sewer and street bonds are voted. Bonds will be validated and sold as soon as possible. Howard Geldert is Town Clerk.

Ga., Lafayette.—Election is to be held in Walker county July 7 to vote on \$75,000 courthouse and \$75,000 road bonds. Address County Comms. (Previously mentioned.)

Ga., Quitman.—Election is to be held in Brooks county May 29 to vote on \$40,000 5 per cent. 40-year road and bridge bonds. J. H. Malloy is Chrmn. Board.

Ga., Stone Mountain.—Election is to be held June 5 to vote on \$12,000 5 1/2 per cent. 30-year \$500 water and school bonds. Address The Mayor.

Ga., Tallapoosa.—Question of issuing \$25,000 school bonds is being considered. Address Board of Education.

Ga., Thomasville.—Ordinance has been prepared calling for an election to vote on \$126,000 of bonds as follows: \$50,000 paving, \$40,000 auditorium, \$30,000 water and light plant extension and improvement, and \$6600 fire department. Address The Mayor.

Ga., Winder.—Election is to be held May 25 to vote on \$13,000 5 per cent. 30-year school-building bonds. Address Board of Education.

Ky., Barbourville.—Dispatch to Manufacturers Record says that \$300,000 5 per cent. Knox county road bonds were purchased by Sidney Spitzer & Co., Toledo, O., at \$2800 premium. Thos. G. Hammons is Judge of Knox county.

Ky., Barbourville.—\$16,500 6 per cent. 10-30-year school Dist. bonds have been purchased by Powell, Gerard & Co., Chicago, at \$436 premium.

Ky., Dawson Springs.—Bids will be opened May 29 for \$10,000 6 per cent. 20-year \$500 school district building bonds; denomination \$500; dated Jan. 1, 1915; maturity Jan. 1, 1935. Address J. M. Day.

Ky., Hazard.—\$12,000 6 per cent. 1-10-year street bonds were purchased at \$2.40 premium by Sidney Spitzer & Co., Toledo, O.; denomination \$100 or multiple thereof, not to exceed \$500.

Ky., Fort Thomas.—\$7000 school and \$15,000 fire apparatus purchase bonds are voted. Address The Mayor.

Ky., Hickman.—Election is to be held in Fulton county May 22 to vote on \$300,000 highway bonds. Address County Commrs.

Ky., London.—Bids will be received until 2 P. M. May 20 by W. L. Brown, Judge Laurel County, for \$100,000 5 per cent. 5-25-year road and bridge bonds; denominations \$500 and \$1000; dated June 1, 1915.

Ky., Morganfield.—Petition is being circulated in Union county asking that an election be called to vote on \$450,000 road bonds. Address County Commrs.

Ky., Williamsburg.—Bids will be received until May 25 by S. S. Lawson, Atty. Whiteley County, for \$250,000 road and bridge bonds; dated June 1, 1915.

Md., Hagerstown.—\$50,000 4½ per cent. \$100 park bonds were purchased by local parties at \$1.31 premium; dated May 4, 1915; maturity 1925 to 1934. J. McPherson Scott is Mayor.

Miss., Gulfport.—City Council has passed a resolution authorizing issue of \$5000 sewer, \$10,000 fire-protective service 6 per cent. 20-year bonds. Address The Mayor.

Miss., Hazlehurst.—The \$150,000 6 per cent. \$500 bonds Road Commrs. Dist. No. 5, Copiah county, recently reported sold, were purchased by the Hibernia Bank & Trust Co., New Orleans, at \$153.842.

Miss., Laurel.—Bids will be received until 2 P. M. May 17 by the Mayor and Board of Commrs. for \$60,000 5 per cent. 20-year \$1000 school, street and water-works bonds. D. F. Gardiner is City Clerk. Further particulars will be found in the advertising columns.

Miss., Meridian.—Election will be held in Lauderdale county June 10 to vote on \$50,000 5½ per cent. road bonds Dist. No. 1; maturity, 1926 to 1940, inclusive; denomination \$500. Address County Commrs.

Miss., Pascagoula.—Election is to be held May 28 to vote on \$17,000 6 per cent. municipal bonds. Address The Mayor.

Miss., Pass Christian.—City proposes to issue \$30,000 water-works and sidewalks improvement bonds. Address The Mayor.

Miss., Shannon.—Election is to be held June 1 to vote on \$1800 street-improvement bonds. J. H. Smith is Mayor.

Miss., Vicksburg.—No satisfactory bids were received May 1 for the \$400,000 5 per cent. water bonds offered on that date. Address First National Bank of Vicksburg.

Miss., West Point.—Bids will be received until 2 P. M. June 7 by Board of Supvrs. Clay County, L. J. Howard, Clerk, for \$20,000 6 per cent. road bonds Dist. No. 2. Further particulars will be found in the advertising columns.

Mo., Carthage.—\$10,000 4 per cent. Carthage School Dist., Jasper county, building bonds have been voted. Address Board of Trustees.

Mo., St. Joseph.—Bids will be received until 2 P. M. June 7 by A. L. Loving, Secy. School Dist., for \$325,000 4 per cent. 15-year school bonds.

Mo., Webster Groves.—Steps are being taken to call an election to vote on \$15,000 school-building bonds. Address The Mayor.

N. C., Bernardsville.—Election is to be held May 18 to vote on \$6000 high-school bonds. S. K. Whitaker is Secy. Board of School Dist. Trustees.

N. C., Burlington.—The \$40,000 school bonds to be voted on June 8 are 5 per cents; denomination \$1000. Jas. P. Montgomery is Secy. and Treas.

N. C., Clayton.—Election is to be held about July 10 to vote on \$10,000 Graded School Dist. building bonds. J. D. Barbour is Secy. of Dist.

N. C., Elizabeth City.—All bids received May 3 for \$4000 5 per cent. Pasquotank county jail-improvement bonds were rejected and new bids will be asked. J. G. Fearing is Chrmn. Board County Commrs.

N. C., Goldsboro.—Bids will be received until noon May 15 by D. J. Broadhurst, City Clerk, for \$9000 street railway, \$6000 incinerator and \$5000 street 5½ per cent. 25-year bonds.

N. C., Greensboro.—Bids will be received until 10 A. M. June 8 by Board of Commrs. Guilford county for \$15,000 5 per cent. bonds Jamestown Special Tax School Dist.; denomination \$100 to \$1000. W. C. Boren is chairman.

N. C., Henderson.—\$10,000 of fire-equipment bonds have been voted; dated July 1, 1915; interest not to exceed 5 per cent.; denomination \$1000. B. H. Perry is Mayor.

N. C., Laurinburg.—\$50,000 5½ per cent. 20-year refunding bonds have been purchased by Farson, Son & Co., New York.

N. C., Lenoir.—\$25,000 6 per cent. 25-year Lovelady township, Caldwell county, road-improvement bonds have been purchased by Terry, Briggs & Slayton, Toledo, at 101.30 and interest; denomination \$1000; dated Apr. 1, 1915.

N. C., Macon.—Election is to be held in Macon High School Dist., Warren county, June 12 to vote on \$10,000 high-school bonds. P. M. Stallings is Chrmn. Board County Commrs.

N. C., Morgantown.—Election is to be held in Burke county June 5 to vote on railroad bonds as follows: Morgantown, \$50,000; Lower Fork, \$15,000, and Upper Fork, \$25,000. Address County Commrs.

N. C., Newland.—Election is to be held in Avery county June 2 to vote on \$100,000 bonds for the purpose of promoting the building of the Avery and Northwestern Rd. from Newland. Address County Commrs.

N. C., Norlina.—Election is to be held June 12 to vote on \$12,000 school-building bonds. Address Board of Trustees.

N. C., Spencer.—\$5000 school bonds are voted and will be purchased by city out of sinking fund. C. G. Theiling is Mayor.

N. C., Waynesville.—\$25,000 5 per cent. 20-year \$1000 electric-power-plant bonds are voted. C. H. Ray is Mayor.

N. C., Wilmington.—Bids will be received until 11 o'clock May 24 by the Board of Drainage Commrs., New Hanover County Drainage Dist. No. 1, for \$22,000 6 per cent. drainage bonds; M. F. H. Gouverneur is Secy. Further particulars will be found in the advertising columns.

Okla., Beggs.—Election is to be held May 8 to vote on \$35,000 water-works and \$8000 sewer bonds. Address The Mayor.

Okla., Drumright.—\$35,000 6 per cent. water-works bonds are voted. Address The Mayor.

Okla., Drumright.—\$20,000 sewerage bonds are reported sold. Address The Mayor.

Okla., Sapulpa.—Election to vote on \$150,000 school bonds will be held May 18. Address School Board.

Okla., Tulsa.—\$200,000 5 per cent. Tulsa county bridge bonds have been purchased at \$2512.60 premium by G. R. McCullough, Tulsa.

S. C., Calhoun.—\$4000 building bonds Calhoun School Dist., Pickens county, are voted. Address County Commrs.

S. C., Cheraw.—Cheraw township has voted \$40,000 road bonds. Address Town Commrs.

S. C., Inman.—\$7000 school bonds Inman School Dist. No. 26, Spartanburg county, are voted. Anyone interested in purchase of bonds should communicate with H. E. Chapman, Chrmn. Board of Trustees.

S. C., Lowdesville.—Bids will be received until June 1 for \$6500 6 per cent. 20-year \$50 bonds School Dist. No. 3, Abbeville county. Dated June 1, 1915. T. D. Cooley is Chrmn. Board of Trustees.

S. C., Mt. Croghan.—\$40,000 courthouse bonds are voted. Address The Mayor.

S. C., Pickens.—\$4000 Calhoun School Dist., Pickens county, 6 per cent. \$1000 bonds are

now being offered; denomination \$1000; dated May 8, 1915; maturity 1935. Address W. H. Grant.

S. C., Sumter.—Petitions are being circulated asking the City Board of Education to order an election to vote on \$50,000 school bonds.

Tenn., Algood.—Bill has been introduced in the Legislature authorizing issue of improvement bonds. Address Town Clerk.

Tenn., Camden.—Benton County Court will issue \$30,000 5 per cent. 10-year \$500 to \$1000 courthouse building bonds. Address County Commrs., R. L. Stockard, Secy.

Tenn., Carthage.—\$15,000 6 per cent. 25-year high-school bonds have been purchased by John Nuveen & Co., Chicago, at a premium of \$800 and interest.

Tenn., Chattanooga.—Bill authorizing \$100,000 bond issue has been introduced in the Legislature. Jesse M. Littleton is Mayor.

Tenn., Chattanooga.—City will place on the market in near future \$165,000 of bonds for funding floating debt. Later in the year \$300,000 wharf and Market street paving bonds will be offered. Jesse M. Littleton is Mayor.

Tenn., Columbia.—\$30,000 6 per cent. 10-year \$1000 bonds for funding floating debt have been purchased by Columbia Bank & Trust Co., Columbia, at par, accrued interest, less \$499 for expenses. E. E. Erwin is Town Recorder.

Tenn., Columbia.—Bill has been introduced in the Legislature authorizing issue of Maury county bonds. Address County Commrs.

Tenn., Cookeville.—Bill has been introduced in the Legislature authorizing issue of water-works bonds. O. K. Holoday is Mayor.

Tenn., Delphi.—Bill has been introduced in the Legislature authorizing Sequatchie county to issue bonds. Address County Commrs.

Tenn., Dandridge.—Bill has been introduced in the Legislature providing for an issue of bonds. Address The Mayor.

Tenn., Friendship.—Bill has been introduced in the Legislature providing for issue of bonds. Address The Mayor.

Tenn., Gleason.—Bonds for electric-light plant are voted. An issue of street bonds was defeated by one vote. Address The Mayor.

Tenn., Jasper.—Marion county has voted \$40,000 of road bonds; \$15,000 of the amount to be spent on Dixie Highway. Address County Commrs.

Tenn., Jasper.—Bill has been introduced in the Legislature authorizing Marion county to issue road bonds. Address County Commrs.

Tenn., Knoxville.—\$500,000 Knox county 5 per cent. 10-30-year road bonds were purchased at \$16,500 premium by Devitt, Trimble & Taylor and Yard, Otis & Taylor, Chicago, through the Union National Bank.

Tenn., Loudon.—Bill authorizing issue of Loudon county road bonds has been introduced in the Legislature. Address County Commrs.

Tenn., Memphis.—Bill is to be introduced in the Legislature authorizing issue of \$750,000 bonds for refunding front-foot assessment. Ennis M. Douglas is Commr. of Accounts, Finance and Revenue.

Tenn., Milan.—\$12,000 water and light plant bonds are voted. Address The Mayor.

Tenn., Nashville.—Bill has been introduced in Legislature providing for an election to vote on \$200,000 bonds to extend Capitol Blvd. Address Mayor Howse.

Tenn., Nashville.—Bill is before the City Council providing for the issuing of \$625,000 4½ per cent. 30-year school bonds. Address Mayor Howse.

Tenn., Nashville.—\$11,781,000 of Tennessee State funding bonds have been sold to a syndicate composed of Redmond & Co., Guaranty Trust Co., Brown Bros. & Co., White, Weld & Co., Kean, Taylor & Co. and Rhoades & Co., all of New York, as follows: \$5,370,000 at 4 per cent. and \$6,411,000 at 4½ per cent.

Tenn., Sevierville.—Bill is to be introduced in the Legislature authorizing issue of Sevier county warrants. Address County Commrs.

Tenn., Waverly.—The \$250,000 Humphrey county road bonds recently voted are 30-year 5 per cents; denomination \$1000 to \$10,000. Jas. T. Anderson is Chrmn. Highway Com.

Tex., Austin.—The Attorney-General has approved the following securities: \$300,000 Gregg county 5 per cent. 40-year road bonds.

Tex., Austin.—Colorado and Cloud school districts, Travis county, will probably soon vote on \$6000 school bonds. Address Board of Education.

Tex., Bryan.—\$400,000 Road Dist. No. 1 1½ per cent. 20-40-year Brazos county road bonds are voted and bids for same will be received until 10 A. M. June 2; dated Apr. 15, 1915; denomination \$1000. J. M. Maloney is County Judge.

Tex., Clarksville.—\$300,000 Clarksville Road Dist. and \$20,000 White Rock Dist., Red River county, road bonds are voted. Address County Commissioners.

Tex., Cleveland.—\$40,000 school bonds are voted and will soon be put on the market. Address H. B. Whitmire.

Tex., Cleveland.—\$40,000 school bonds are voted. Address Board of Education.

Tex., Cuero.—Bids will be received until 2 P. M. June 1 by Commrs. Court, DeWitt county, for \$50,000 5 per cent. 20-40-year \$500 bonds Road Dist. No. 1, DeWitt county; dated Mch. 1, 1915; R. J. Waldeck, County Judge.

Tex., Crumby.—\$10,000 water-works bonds are voted. Address The Mayor.

Tex., Donna.—\$900,000 5 per cent. 40-year bonds Donna Irrigation Dist. are voted for purpose of taking over property of the La Donna Canal Co. Address Board of Commissioners.

Tex., Jourdanton.—\$10,000 street-improvement bonds are voted. Address The Mayor.

Tex., Kountze.—Bids will be received until 11 A. M. May 24 for \$150,000 bonds Hardin County Road Dist. No. 1. D. F. Singleton is County Atty. and W. W. Dies County Judge.

Tex., Littlefield.—\$15,000 school bonds are voted. Address Board of Education.

Tex., Marlin.—Election is to be held June 15 to vote on \$75,000 school-building bonds. Address Board of Education.

Tex., Sweetwater.—Election is to be held June 10 to vote on \$5000 15-year street and \$10,000 20-year school improvement 5 per cent. bonds. Address The Mayor.

Tex., Timpson.—\$17,000 water-works and \$10,000 street-improvement 5 per cent. 10-40-year bonds were purchased by J. L. Arlitt of Austin, Tex.; dated Apr. 10, 1914. B. J. Hawthorne is Mayor.

Tex., Yoakum.—\$50,000 bonds Road Dist. No. 1, Lavaca county are voted. Address County Commrs.

Va., Covington.—Election is to be held June 5 to vote on \$25,000 5 per cent. 20-year \$500 reservoir bonds. E. B. Butler is Mayor.

Va., Leesburg.—Election is soon to be held to vote on high-school building bonds. J. E. Clemens is Chrmn. School Board.

Va., Norfolk.—\$743,000 4½ per cent. 30-year improvement and refunding bonds have been purchased at 98.52¢ by Harris, Forbes & Co., New York.

Va., Portsmouth.—No satisfactory bids were received for the \$15,000 5 per cent. 20-year bonds Tanner's Creek Magisterial Dist. No. 6, Norfolk county, offered May 4. B. F. Cartwright is Clerk School Board.

W. Va., Clarksburg.—Bids will be received until noon May 25 by M. B. Newion, Recorder town of Stealey Heights, for \$30,000 6 per cent. 1-10-year street bonds.

W. Va., Falling Springs, P. O. Renick.—Bids will be opened June 15 for \$4500 6 per cent. 10-20-year \$100 road and street bonds voted May 1, 1915. J. P. Smith is Mayor, and M. G. Myles, Recorder.

W. Va., Grafton.—Petition is being circulated asking the City Commission to call an election to vote on \$15,000 hospital bonds. Address The Mayor.

W. Va., Grantsburg.—Bids will be received until noon June 7 by S. T. Waldo, Recorder, for \$7500 water and \$2500 sewer 6 per cent. 10-34-year bonds. (Previously mentioned.)

W. Va., Keyser.—\$35,000 5 per cent. school bonds are voted; dated July 1, 1915, and maturing July 1, 1925. W. S. Smallwood is Prest. and W. H. S. White, Secy.

W. Va., Piedmont.—\$8000 5 per cent. 10-year school-district building bonds are voted; dated July 1, 1915; maturity July 1, 1925. W. H. S. White is Secy. School Board.

#### FINANCIAL NOTES

The Mississippi Bankers' Association, at its annual convention at Jackson, elected for the ensuing year as follows: Prest., B. J. High of Tupelo; V.-P., J. A. Bandi of Gulfport; Treas., E. P. Peacock of Clarksdale; Secy., Thos. H. Dickson of Vicksburg. Next year the convention will be held in Laurel.

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on Hampton Roads, fifteen miles from the sea.  
deep water, railway and sea transportation facilities  
unrivalled. Climate salubrious. Apply to

W. B. LIVEZEY, President

OLD DOMINION LAND COMPANY  
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OF BALTIMORE**

A. H. S. POST, President

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# Classified Opportunities

## MINERAL AND TIMBER LANDS WATER POWERS MISCELLANEOUS PROPERTIES

5400 ACRES virgin hardwood timber land in East Tennessee; price \$10 per acre. About 300-horse water-power, with 80 acres and improvements, on pike close to Birmingham, Alabama; price \$10,000. Farm Realty Co., 328 Jefferson Co. Bank Bldg., Birmingham, Ala.

**HAVE YOU A VALUABLE PROPERTY FOR SALE?** Farm, timber land, mineral property or any other? We can help you get in touch with possible purchasers by an advertisement in these columns. For rates see head of this department.

**FOR SALE ON REASONABLE TERMS.**  
25,000 acres, Escambia county, Alabama, especially adapted for colonizing.  
24,000 acres coal and timber lands, located west of Birmingham, Alabama.  
14,000 acres, located Southern Alabama, especially desirable for agricultural purposes or colonizing.  
10,000 acres, located north Baldwin county, Alabama, especially adapted for a ranch.  
5000 acres, especially desirable for citrus-fruit growing, including a townsite located just across the bay from Mobile.  
5000 acres of hardwood timber, located on the Alabama River not far from Mobile.  
500 acres, suitable for factory sites and subdividing, in Mobile.  
100,000,000 feet of hardwood timber, located in Central Alabama.  
30,000,000 feet long-leaf yellow pine, Southern Alabama.  
I own and control all of the above-described properties, and I also act as a broker, so that I am in a position to meet most any requirements in Southern acreage property. Address H. H. Wefel, Jr., Mobile, Ala.

### CITY PROPERTY

**FOR SALE**—120 acres in center of city (population 5000); 1800 acres adjoining; magnificent for hotel, subdivision and development; famous resort, creek and springs. Address owner, Doak Aydelott, Tullahoma, Tenn.

### LIMESTONE QUARRY

**CEMENT LIME.**—Fine quarry limestone, suitable for high-grade cement. Owner leaving State, and will sell this and other valuable property at sacrifice. B. H. Collier, Opelika, Ala.

### MANGANESE ORE

**MANGANESE ORE.**—Eight hundred acres, located on railroad in Arkansas, offered for quick sale at \$10,000. Address owner, Doak Aydelott, Tullahoma, Tenn.

### CHINA CLAY PROPERTY

**"CHINA CLAY."**—I have for sale one of the finest china clay properties in this country, with machinery and equipment; the product is well and favorably known to the trade; splendid shipping facilities, with private track from works to station on main line. For prices and terms apply to E. J. Doris, Real Estate Agent, Leonard Bldg., Augusta, Ga.

### COAL LAND

**FOR SALE**—Coal lands on railroad in Eastern Kentucky, 24,000 acres, but will divide in parcels to suit. Coals low in sulphur and ash and high in heating value. Address P. O. Box 35, Scranton, Pa.

### POLES AND PILING

**I FURNISH** chestnut poles any length, 20' to 75' oak piling any size. Locust post. Have a good stock of poles on hand at all times, and can make prompt shipments. When interested address E. L. Lewis, Relief, N. C.

**FOR SALE**—White cedar poles from twenty-five to sixty feet, with 6", 7" and 8" top. Walton & Nixon, Vilas, Fla.

### CYPRESS LATHS

**I WISH** to sell the output of a cypress lath mill, about 80,000 daily capacity; lath to be cut 1 1/2 in. full or 1 3/4 in. If desired, interested parties please address L. M. McEwen, Hampton Springs, Fla.

### TIMBER

**REAL TIMBER BARGAIN.**—50,000,000 ft.; 70% N. C. pine, poplar and cypress, all original growth; on Southern R. R. in South Carolina. Liberal terms and low price. J. P. Mulhern (owner), Augusta, Ga.

### TIMBER TRACTS WANTED

**WANTED**—PINE TIMBER.—Good yellow pine tracts cruising 5,000,000 to 50,000,000 feet. Send description and lowest price for cash to Lumberman, 14 Coosa St., Montgomery, Ala.

**WANTED**—To buy tract of first-class white oak timber land, near railroad or navigable stream. B. M. Harvard, 721 Maison Blanche, New Orleans, La.

### TIMBER LAND

**YELLOW PINE TIMBER FOR SALE.**—One very large tract, two medium size and several small locations, all in Florida. Chas. B. Harman, Gainesville, Fla.

**FOR SALE**—Several desirable pieces of timber at bargain prices. If you are in the market and want a money-maker, write George J. Philip, Box 42, Oil City, Pa.

## RATES AND CONDITIONS

Rate 20 cents per line per insertion. Minimum space accepted, four lines. Maximum space accepted, 25 lines. In estimating the cost, allow seven words of ordinary length to a line. When the advertisement contains a number of long words, proper allowance should be made. Terms: Invariably cash with order; check, postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, whiskey or mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 18c. per line; 300 lines, 16c. per line; 500 lines or more, 15c. per line.

**TIMBER.**—7650 acres of good Kentucky timber, containing 62,730,000 feet, with new railroad line now being constructed right through the tract. Will cut per acre, 4000 feet of chestnut oak and white oak, 1500 feet poplar 1000 feet sound plany chestnut, 800 feet basswood, 650 feet hickory and 250 feet of black walnut. Price \$22.50 per acre. Scherr, Morton & DeVan, Charleston, W. Va., Union Building.

100,000,000 FEET untouched original growth hardwood timber with large amount of valuable surplusage. Freight advantages to Norfolk, Baltimore and other Atlantic export points estimated at several hundred thousand dollars. 140 miles from Baltimore. No other such proposition within 250 miles. Large portion original grant to the late owners from English Crown. We are owners and prefer direct communication with purchasers. Address Owners, Box 1750, care Manufacturers Record, Balto., Md.

### FARM AND TIMBER LANDS

640 ACRES alfalfa land, \$12,000.  
2400-acre plantation, \$24,000.  
12,000 acres cut-over land, \$30,000.  
12,000 acres 70,000,000 pine, \$13 an acre.  
23,000 acres for colonization, \$5.50 an acre. Write Secor, Selma, Alabama.

**ORIGINAL** and second-growth timbers in tracts containing from 500,000 to 50,000,000 feet, all situated on and near large trunk-line railroads. Prices right; terms liberal. Farm lands below bargain prices, containing from 25 to 5000 acres. Virginian-Seaboard Realty Company, Alberta, Va.

### NURSERY LAND

**NINETY-FIVE ACRES** at one hundred and seventy-five dollars per acre. One hundred and sixty acres at three hundred dollars per acre. Part adjoining and part in city and best nursery land. Guarantee lease of land at eight per cent. Will L. Vining, Austin, Tex.

## FRUIT, FARM AND TRUCK LANDS

**THESE COLUMNS ARE CLOSELY READ BY PEOPLE** for information of all kinds about Southern properties of every description. If you have a property of any kind that you want to dispose of, try an advertisement in these columns. Others have to their advantage. For rates see head of department.

### ALABAMA

**GOOD INVESTMENT.**—We offer for sale 13,000 acres of best farm, fruit and stock-raising land in solid body, situated only a short distance from Bay Minette in Baldwin county, Alabama.

This land lies well, being level to slightly rolling, with several streams of running water through the tract, making it very desirable for colonization purposes. This tract can be purchased for the low price of \$7 per acre. Will arrange terms. T. L. Moore & Co., Room 100 Masonic Temple, Mobile, Alabama.

### FLORIDA

**FREE**—William L. Larkin's booklet, "The Truth About Florida," with a six-months' subscription (at one-half regular rates) to The Indian River Farmer. Fruit growers, truckers, general farmers, folks interested in Florida, send 25c. to The Indian River Farmer, V-1, Vero, Fla.

200 ACRES fine citrus land, 4 miles from Fort Meade. The entire tract suitable for oranges and grapefruit. No waste land at all. Price for quick sale, \$20 an acre. Write J. A. Newsome, Fort Meade, Fla.

**FLORIDA ORANGE GROVE FOR \$29.**—Five minutes' walk from street car to Pensacola, a city of 30,000. 25 cents reserves a grove and brings full particulars with photo album of twenty colored views. Send today, as groves are limited. National Land Sales Company, Box 625, Pensacola, Fla.

**FOR SALE.**—Eventually you will buy a home in Florida. Why not now, while the price is low? 280-acre farm, beautiful and healthful, 160 acres in cultivation, on graded highway, 4 miles from this city, 2 miles from railway station; excellent for stock raising, fruits and general farming. Now only \$20 per acre. J. W. Blumie, Live Oak, Fla.

**FLORIDA.**—8000 acres cut-over land lying between Lake Crescent, Lake Louise and Lake George, in Putnam and Volusia counties, traversed by main line of A. C. L. Railway; large portion especially adapted to orange and grapefruit culture; balance flue-stem potato and general farming land; lands all round selling \$20 to \$100 per acre. My price, \$10 per acre in a body; terms. Correspondence solicited. Chas. A. Brown, Jr., 30-31 Buckman Building, Jacksonville, Fla.

**FINE BLACK MUCK AND MARL VEGETABLE AND TRUCKING GROUND.** 230 acres, fronting 1 1/2 miles on navigable canal with water rights; fronting on hard rock roads, R. F. D. route, 1 mile from shipping station, thousands of acres tomatoes, eggplant, peppers and vegetables of all kinds adjoining; large grapefruit and orange groves all about. Will sell right price if taken quick, or will trade for unincumbered income-bearing property. Fine place for grove, stock farm, or very profitable vegetable raising. Now free from debt. G. L. Miller & Company, Miller-Mercer Bldg., 1106 Avenue C, Miami, Fla.

### NORTH CAROLINA

**FOR SALE**—A Farm.—289 acres in the finest fruit section in North Carolina in the Isothermal Belt. No frost line. Has two houses, 500 fruit trees bearing—room for 5000 trees or more. A man can take the place and in six years it will pay for itself every year thereafter. Terms easy. Walter Brem, Latta Arcade, Room 205, Charlotte, N. C.

**FOR SALE**—50 to 150 acres valuable land. The Southern Industrial Institute, in order to reduce its indebtedness, will sell 50 to 150 acres of its valuable land close to Chadwick-Hoskins village, and 10 minutes' walk from street-car line. See map and prices at 1001 Commercial Bank Bldg., Charlotte, N. C. P. C. Abbott, Treasurer.

### OKLAHOMA

**MAYES COUNTY LAND CO.**, 111 North Cherokee street, Muskogee, Okla.—We sell farms and ranches from 80 acres up; income property for trade for land.

### TEXAS

**FRUIT LAND.**—11,000 acres in the Fort Davis Valley. \$5 per acre to settle an estate; \$1 per acre cash, balance 1 to 10 years. For further description address J. Humphris, Marfa, Texas.

### VIRGINIA

**VIRGINIA ESTATES.**—Colonial homes, plantations, farms, suburban homes, Albemarle pippin orchards, timber lands. Write us for what you want. We have it. R. N. Flanagan & Co., Charlottesville, Va.

**ACREAGE PROPERTY IN VIRGINIA.**—1172 acres in Fairfax county, Virginia, within the 9 miles limit from the White House, Washington. Excellent opportunity for development within the next few years. Suburban improvements advancing in that direction. Will sell for cash or exchange for income property. Said to have about 325,000 worth of timber on the property. Apply to I. H. Saunders, Southern Building, Washington, D. C.

676 ACRES, one mile from thriving town on the Virginian and Seaboard Air Line railways, on two public highways; 350 acres in high state of cultivation; 150 acres in bottom lands, and is considered very fine grazing for cattle. The character of the soil is gray and chocolate loam and well adapted to the growing of all kinds of crops, such as wheat, corn, grass, alfalfa and tobacco. Three nice dwellings containing seven rooms each, in excellent condition, watered by creek and branches. The entire farm is fenced in with net wire on cedar posts. Five tenant-houses, eight barns and many out-buildings. Large quantity of growing timber and large deposits of very fine gray granite. This is considered one of the best stock farms in the county. Price will be given on application to the Virginian-Seaboard Realty Co., Alberta, Va.

## BUSINESS OPPORTUNITIES

\$75 STARTS you in business, selling our adjustable form units for building any size and shape concrete culverts. Cheaper than any other forms. Frick Mfg. Co., Fricks, Pa.

**FOR SALE**—Gas plant, having \$500 per month income with fine margin of profit. Price \$20,000, and is clear of debt. Might take some or all of pay in clear land or income property. Address No. 1746, care Manufacturers Record, Balto., Md.

**FLORIDA ORANGE GROVE FOR \$29.**—Five minutes' walk from street car to Pensacola, a city of 30,000. 25 cents reserves a grove and brings full particulars with photo album of twenty colored views. Send today, as groves are limited. National Land Sales Company, Box 625, Pensacola, Fla.

**WANTED**—Office man with \$10,000 cash to join with successful miller with like amount of cash to rebuild plant of Asheville Milling Company. Address Box 872, Asheville, N. C.

**OWING** to broken ties that would make residence painful to owner, will sell or exchange equity in attractive residence, small farm and store property in Virginia, or will lease. Address No. 1754, care Manufacturers Record, Balto., Md.

**COTTON-OIL EXTRACTOR** invented and patented by mechanical engineer experienced on oil presses; entirely new, and scientific in principle; will give a greater yield of oil and reduce mill operation costs 75 per cent, or more; will work any kind of seed; desire to form company. Address No. 1757, care Manufacturers Record, Balto., Md.

**HAVE A LARGE** residential lot subdivision containing two thousand lots adjoining the city of Tampa, Fla. Am desirous of placing this subdivision in the hands of a large selling company one who will get quick results; prices will be reasonable; improvements will be guaranteed and title perfect. Will pay a commission of 25 per cent. Thos. C. Hammond & Co., 4 and 5 Giddens Bldg., Tampa, Fla.

**FOR SALE**—At Richmond, Va., in business center, modern and complete office and warehouse; lot 117 feet by 120 feet; main building 5 stories and basement, containing 40,000 square feet of floor space; 2 power elevators; cold-storage room; garage and storage shed; loading platform; Independent C. & O. R. R. siding; occupied as a wholesale liquor house; terms easy. Harrison & Bates, 7 N. 11th St., Richmond, Va.

**WE ARE CONSULTING ENGINEERS** backed by competent staff and a modern machine plant that can save you money if you are interested in designing or building special machinery, special tools, experimental work, models, etc. If you have patented an article which is not perfected, a consultation with our expert mechanic is at your command. We are giving attention to developing patents and marketing patented articles, especially labor-saving appliances. Our list of office appliances is available. We invite correspondence and will give estimates promptly and cheerfully. Specialty Manufacturing-Sales Corp., Norfolk, Va.

**FOR SALE**—Patent No. 1,089,992, pen cleaner, holder and paper weight; size 4x2 inches and 1 1/2 inches deep; weight 14 ounces. The holder is made of steel, glass or brass; the receiving element for the pen is made of corastalk pith, which keeps the pen cleaned and free from dust and corroding. The holder will last a lifetime; the pith filler will last 15 days with constant use, then new one is inserted; easy to operate and perfectly sanitary. A real novelty for the desk or counter as well as a necessity for every office. A splendid mail-order specialty or a perpetual advertising novelty. Every user of pen and ink needs it. Big field and large profits. W. T. Tyler, Warsaw, Va.

## AMERICAN ELK HORNS

**AMERICAN ELK HORNS.**—Fol Bus Opp. HORNS OF AMERICAN ELK.—One of the largest pairs on record; spread 5 feet 2 inches; depth from front to back, 3 feet 7 inches; height from lowest to highest part of antlers, 3 feet 8 inches. Still on original head. Elk shot about 1870. For years the famous horns of Wyoming Territory. For sale in settlement of an estate. For further particulars address J. S. Pray, 50 Garden St., Cambridge, Mass.

## INTEREST IN COAL-MINING COMPANY FOR SALE

**AN UNUSUAL OPPORTUNITY** to secure an interest in a splendidly equipped operation in the Pocahontas field, working the original No. 3 seam, 5 feet thick. The management is in the hands of the wealthiest and most successful operators in the field. Over \$400,000 has been spent on the improvements, and the works have never lost a day for want of orders. The large stockholders and directors represent a tonnage of several millions annually and a wealth of many millions of dollars.

Particulars as to the directors and stockholders will be furnished to bona-fide interested parties. The unusual conditions prevailing for the past year compels the owner (a non-resident) to sacrifice the stock, which will be sold for \$50 per share, par value \$100, and it cost that. Terms easy; \$10 per share down and \$10 per share per month. Certificates in one-share lots or any number. Brokers protected. Address No. 1624, care Manufacturers Record, Balto., Md.



## COLLEGES AND SCHOOLS

**RENSSELAER POLYTECHNIC INSTITUTE, TROY, N. Y.**—Courses in Civil, Mechanical, Electrical and Chemical Engineering and General Science, leading to the degree of Civil Engineer (C.E.), Mechanical Engineer (M.E.), Electrical Engineer (E.E.), Chemical Engineer (Ch.E.), and Bachelor of Science (B.S.). Also special courses. Splendidly equipped new engineering laboratories. Send for catalogue to Registrar.

## WHERE TO SPEND THE SUMMER, MOUNTAIN—LAKE—SEASHORE

**FOR RENT**—Furnished summer cottage; 10 rooms; mile from station; stage passes door; barn, garden, if desired.  
For Sale—Comfortable little home near Brandon, Vt.; never-failing water; barns; 2 acres ground. Summer Board—Cottages on Lake Dunmore; fishing, boating, driving; \$7 up. G. E. Seiden, Brandon, Vt.

**LUNENBURG, MASS. (R. R. Sta., Shirley)**—For Sale—Summer home in pine woods; 10 rooms; open fireplace; large stable; 45 acres or more (woodland, pasture, etc.). Reasonable to close an estate. J. S. Pray, 50 Garden St., Cambridge, Mass.

**IN CHOCORUA, N. H.**, old house to let in beautiful location, June, July, August; also small camp. Apply to Miss Oliver, North Andover, Mass.

## PATENT ATTORNEYS

**EUGENE C. BROWN, ENGINEER AND PATENT LAWYER**, Suite 40 Victor Building, Washington, D. C. Member Bar U. S. Supreme Court. Patents and Trademarks. Inventions are considered both from Engineering and Legal standpoints in my prosecution of patents. An experience of over 9 years as Examiner in U. S. Patent Office and over 6 years as Patent Expert in important patent suits are my especial qualifications. Reports upon validity and infringement. Send sketch of invention for advice.

**VALUABLE INVENTIONS** justify only best legal service. Consult Vernon E. Hodges, Attorney-at-Law, Barrister Bldg., Washington, D. C. Practice before the U. S. Supreme Court, all Circuit Courts; Courts of the District of Columbia, and the U. S. and Foreign Patent Offices exclusively. Continuous practice since 1886. Extensive experience with all classes of invention, representing lawyers, manufacturers and inventors in every State.

**PATENTS THAT PROTECT AND PAY.** Advice and books free. Highest references. Best results. Promptness assured. Trade-marks registered.

Watson E. Coleman, Patent Lawyer, 624 F St., Washington, D. C.

**EDWARD BRUCE MOORE**, sole offices, 159 Barrister Building, Washington, D. C. Head of United States Patent Office and Commissioner under Presidents Roosevelt, Taft and Wilson, and Assistant Commissioner under President McKinley. Do not waste money for patents procured by unknown and incompetent attorneys. They are worthless, and manufacturers and investors will not buy them nor do they fully protect your invention. Consult an expert known throughout the patent world. A known attorney's name on your patents adds value. Costs no more to be safe.

**PATENTS.**—Herbert Jenner, patent atty. and mechanical expert, 606 F St., Washington, D. C. I report free of charge if a patent can be had and its exact cost. Send for circular.

**MONEY IN PATENTS.**—I secure your patent or return my fee. Manufacturers want Mills patents. Write for free booklet, "How to Get Your Patent and Make Your Profits Thereon." I assist in selling your patent. Mansell F. Mills, Registered U. S. Patent Atty., 22 Com. Nat. Bank Bldg., Washington, D. C.

**PATENT YOUR IDEAS.**—\$9000 offered for certain inventions; book, "How to Obtain a Patent" and "What to Invent," sent free upon request; send rough sketch for free report as to patentability. We advertise your patent for sale at our expense. Chandler & Chandler, patent attorneys, 978 F St., Washington, D. C.

**C. L. PARKER**, Patent Lawyer, formerly member Examining Corps, U. S. Patent Office, 924 G St., Washington, D. C. Patents secured. Patent suits conducted. Reports on the patentability of inventions, the scope and validity of patents, and whether any process or machine infringes existing patents. Reference to prominent manufacturers and pamphlet of instruction furnished upon request.

**PATENTS** secured or Fee returned. Send sketch for free report as to patentability. Guide book and what to invent, with valuable list of inventions wanted, sent free; \$1,000,000 offered for inventions. Patents secured by us advertised free in World's Progress; sample free. Victor J. Evans & Co., 12 Ninth St., Washington, D. C.

**"WORDS OF VALUE TO INVENTORS"** sent free; should be carefully read before applying for patents. John R. Woodworth, Registered Atty., Ward Bldg., Wash., D. C.

## INDUSTRIES WANTED

## MISCELLANEOUS

**WEST POINT, VIRGINIA**, is the best unused location for a city in the United States, and its natural advantages will offset bonuses offered by other cities. Write Chamber of Commerce.

**WATER** and railroad facilities can be had here. Labor is plentiful. The best of schools, churches and shipping facilities. We have an attractive proposition to new industries. If interested, write us. Pocomoke City Board of Trade, Pocomoke City, Md.

**LOCATE YOUR PLANT IN MARION, NORTH CAROLINA.** Complete railway facilities. Raw material. Cheap fuel. Good labor. Ideal climate. For further particulars address The Board of Trade, Marion, N. C.

## WAREHOUSE OR FACTORY BUILDING FOR SALE

**FOR LEASE**—Warehouse or factory building (on two R. R. tracks, capacity 12 cars), 30,000 feet floor space; electric elevator, two large boilers, one large Corliss engine, air compressor, well, heaters, etc.; 50,000 gallon steel tank; fine for mixed-feed plant, warehouse or general manufacturing purposes. Churchill & Co., Agents, 55 Madison, Memphis, Tenn.

## FACTORY SITES

**BALTIMORE FACTORY AND TERMINAL SITES.**—Statement of Asa G. Candler, President The Coca-Cola Co.: "Investigation convinced us that Baltimore is not only the commercial metropolis for Southern trade, but that it affords shipping opportunities both by water and rail for domestic and foreign traffic superior to any of the great cities in any section of the United States." Locate in Baltimore and derive these advantages. We can provide accommodations to meet your requirements. Wm. Martien & Co., 3 N. Calvert St., Baltimore, Md.

## INDUSTRIAL PLANTS FOR SALE

## FOUNDRY AND MACHINE SHOPS

**FOR SALE**—Machine shop and foundry; cheap; long time. Box 310, Memphis, Tenn.

## WHEEL AND MINE CAR PLANT

**FOR SALE**—In Birmingham, Ala., a car wheel and mine-car plant, equipped with power plant, 75 K. V. A. generator, compressors, etc., foundry 80x170, machine and blacksmith shop 60x25, also office, fireproof pattern storage, pattern shop, bins, washroom, etc. Property just outside city limits on two railroads. Two spur tracks into yard. Low taxes, plenty of houses nearby for employees, and only one competitor in district. Suitable for any manufacturing purposes. Unusually low price; can make terms to right parties. Address No. 1756, care Manufacturers Record, Balto., Md.

## FURNITURE-INTERIOR TRIM PLANT

**FURNITURE, PANEL, INTERIOR TRIM PLANT.**—For quick sale, the best factory in the South for manufacture of panel, furniture or interior trim. Special advantages in rates, taxes, labor, raw material, both yellow pine and hardwoods. Plant is new, fireproof, and insurance rate is 50 cents per \$100. Sale price is less than half the cost. Write for particulars and photographs. J. F. Mulherin, Trustee, Augusta, Ga.

## MATTRESS AND EXCELSIOR PLANT

**FOR SALE**—Well-established mattress and excelsior plant, situated in a splendid town, and excellent territory; running continuously 20 years; now doing a good business; health of owner only reason for selling. If interested write No. 1729, care Manufacturers Record, Balto., Md.

## FURNITURE PLANT

**FOR SALE**—Well-equipped furniture plant. Two ironclad buildings; 28,000 feet of floor space; machinery first-class condition. Located Sanford, N. C., on four railroads, siding on A. C. L. R. R. and right of way for siding to main line of S. A. L. R. R. Near A. & W. and Southern Ry. stations. Steam power used. Electric power available. Excellent opening. For further particulars address C. C. Cheek and S. P. Hatch, Receivers, Sanford, N. C.

## FLOUR AND GRIST MILL

**FOR SALE**—50-bbl. steam flour and grist mill in wheat belt of Eastern Shore, doing good business; bargain if taken at once; ill-health forces owner to retire. Dixie Realty Co., Inc., Cambridge, Md.

## MODELS

**MODELS MADE FOR INVENTORS.**—General machine work. Designing and perfecting. Developing automatic devices and machinery. In a position to do all kinds of light tool and machine work. Prices reasonable. Estimates cheerfully given. Ideal Machine Works, 64 Ann Street, New York City.

## MANTELS AND TILE FLOORS

**NORTHCROSS WOOD MANTELS AND TILE FLOORS** for every purpose. Sold direct from factory to your home. All orders receive prompt attention. Every contractor should have a copy of our new catalog showing the largest line in America. Mailed free. W. J. Northcross Mantel Company, 73 Union Ave., Memphis, Tennessee.

## MEN WANTED

**WANTED**—Manufacturers' agents to sell new articles of necessity having unquestioned merit. Liberal commissions. Address Ze-Ve Mfg. Co., Tulsa, Okla.

**ARE YOU LOOKING FOR A GOOD MAN?** There are a number looking for you. You can get together through an advertisement in these columns. Try it. For rates and other information see block at head of department.

**IF QUALIFIED** for executive, technical, mechanical, professional or administrative position carrying salary between \$2500 and \$12,000, write undersigned counsel, through whom strictly confidential preliminaries will be negotiated for important appointments. Send address only for prefatory details. R. W. Bixby, Lock Box 134-J4, Buffalo.

**AGENTS WANTED** among supply dealers and salesmen for an exceptional house-lighting machine, suitable for small homes as well as large; simple, durable, economical; satisfaction guaranteed to customers; has excellent selling points; a live proposition. Write for terms. The Alexander N. Milburn Co., Baltimore, Md.

**WANTED**—An experienced repair mechanic on steam shovel and mill machinery. State references, where worked last, wages expected, married or single, and full particulars. Apply immediately by letter. Crimora Manganese Corporation, Crimora, Va.

**EFFICIENCY SOCIETY OF AMERICA**, Pittsburgh, Pa., require State secretaries and special organization agents throughout the Southern and Southwestern States. Liberal compensation arranged.

**REPRESENTATIVES** to cover territory more thoroughly. Boiler-room necessities; liberal commissions; old-established house. Apply by letter. H. F. Maurel, 534 West 22d St., New York City.

## PARTNER WANTED

**WANTED**—Partner with \$4000 to install electric-light plant in growing town in Florida. Box 614, Lakeland, Fla.

## AGENCIES WANTED

**MANUFACTURERS' AGENT**, with experience, energy and prestige, having office facilities, wants high-grade line for Washington and the East. M. S. C., 403 Stewart Bldg., Washington, D. C.

**WANTED**—Sales agency for all lines pertaining to builders' specialties; East Tennessee as territory; can furnish satisfactory references to interested concern; modern warehouse facilities. Address Daniel Briscoe, Jr., 325-327 State St., Knoxville, Tenn.

## SITUATIONS WANTED

**EXPERIENCED** and efficient bookkeeper and systematizer, now employed but desires change, would like to figure with responsible wholesale concern with a view of forming connection; considerable experience with credits and collections; references exchanged. Address No. 1758, care Manufacturers Record, Balto., Md.

**CONTRACTOR**, graduate engineer, seven years' experience on heavy concrete and excavation work, desires to locate in South with established contracting business. Will consider office or outside position. Can handle labor and is particularly good buyer. No. 1751, care Manufacturers Record.

## Street Paving

Columbia, Tenn.  
Sealed bids for about 8500 sq. yds. of asphalt-concrete on macadam base; also for about 14,200 sq. yds. of asphalt-macadam mixed method on macadam base; also for about 3800 running feet of combined curb and gutter, will be received by the Recorder of Columbia, Tennessee, at City Hall, on May 25, 1915, at eight (8) o'clock P. M. Contractor to surface and grade roadbed. Sample of asphalt to accompany each bid; also certified check for 10 per cent. of amount of bid as a guaranty of good faith. Contractor can bid on several brands of asphalt. City reserves the right to reject any and all bids.  
By order of Board of Mayor and Aldermen of City of Columbia, Tennessee.  
J. M. DEDMAN, Mayor.  
E. E. ERWIN, Recorder.

## Notice To Dredge Contractors

Trenton, Tenn.  
Until noon on June 9, 1915, we will receive sealed bids, at the office of the County Clerk at Trenton, Tennessee, for excavating by dredgeboat of approximately 1,158,286 cubic yards of earth to be bid on in two sections and as a whole. For specifications address the undersigned W. W. Powers, County Judge.

Trenton, Tennessee, May 10, 1915.  
W. W. POWERS,  
R. KILLOUGH,  
K. E. WITHERSPOON,  
Directors Drainage District No. 2,  
Gibson County.

**WANTED**—Position in any business where can be made available; experience of over 35 years in the building business; both field and office work, architecture, estimating, supervising, contracting, bookkeeping, office system, etc.; capable of filling position of responsibility and executive. Correspondence solicited. W. E. Speir, 1859 California St., Washington, D. C.

**ELEC. CONTRACTOR** wants position with some power company or large contracting firm; college graduate in Elec. Engineering with five years' contracting experience; can furnish the best of reference as to habits and ability. Address No. 1755, care Manufacturers Record, Balto., Md.

**POSITION DESIRED** as superintendent or manager in a factory manufacturing chairs or furniture specialties; 23 years' experience in all its branches, from log to marketing the goods. Can furnish the very best of references as to habits, ability and integrity, and also as a producer. Age 43. Investigate. Address No. 1752, care Manufacturers Record, Balto., Md.

## LETTERHEADS, PRINTING, ETC.

**LITHOGRAPHED** Letterheads; at low cost—5000, \$2 per M; 10,000, \$1.75 per M; 25,000, \$1.40 per M. Nominal engraving charge on 1st order; quality guaranteed. Write for samples on your own letterhead. Monarch Lithographing Co. (Dept. E), Minneapolis, Minn.

**EMBOSSED LETTERHEADS, TOKYO BOND PAPER**, 1000, \$4.00. Envelopes to match, \$4.00 for the 1000. We use 20-lb. to the ream paper. Send for samples. Turner & Dunlap, Wilkes-Barre, Pennsylvania.

**ATTRACTIVE STATIONERY** at moderate prices. Send for our free sample booklet "M" and price list of effective, economical letterheads. Commercial Art Press, Beaver Falls, Pa.

**POSTPAID**—1000 envelope slips, 100 words, 75c.; 1000 20-lb. Hammermill bond letterheads, \$1.85; envelopes same price. Send for samples. The Ryder Print Shop, Dept. R, Barnerville, N. Y.

**\$1.50, 1000 Bond Letterheads**; 5M, \$6; Bill-heads and Statements, same price; 1000 6 3/4 XXX Envelopes, \$1.75. Send for samples. A. W. Beveridge & Co., Printers, 111 Mercer St., Baltimore, Md.

## REBUILT TIME AND COST KEEPING RECORDERS

**TIME CLOCKS**, Day and International bi-chrome machines, calculagraphs, cost-keeping recorders; everything in time clocks and supplies. R. G. Watkins, 9 Church St., N.Y. City.

## MACHINERY AND SUPPLIES

## GRANULATED CORK

**FOR SALE**—50 tons pure granulated cork, cheap. Apply New Orleans Cold Storage & Warehouse Co., Ltd., New Orleans, La.

## NAILS

**NEW NAILS**—Have several hundred kegs of various sizes of cut and wire nails. Attractive price in any quantity. Address L. A. Green, 1512 First Natl. Bank Bldg., Pittsburgh, Pa.

## PROPOSALS

## Street Paving

Columbia, Tenn.  
Sealed bids for about 8500 sq. yds. of asphalt-concrete on macadam base; also for about 14,200 sq. yds. of asphalt-macadam mixed method on macadam base; also for about 3800 running feet of combined curb and gutter, will be received by the Recorder of Columbia, Tennessee, at City Hall, on May 25, 1915, at eight (8) o'clock P. M. Contractor to surface and grade roadbed. Sample of asphalt to accompany each bid; also certified check for 10 per cent. of amount of bid as a guaranty of good faith. Contractor can bid on several brands of asphalt. City reserves the right to reject any and all bids.  
By order of Board of Mayor and Aldermen of City of Columbia, Tennessee.  
J. M. DEDMAN, Mayor.  
E. E. ERWIN, Recorder.

## Notice To Dredge Contractors

Trenton, Tenn.  
Until noon on June 9, 1915, we will receive sealed bids, at the office of the County Clerk at Trenton, Tennessee, for excavating by dredgeboat of approximately 1,158,286 cubic yards of earth to be bid on in two sections and as a whole. For specifications address the undersigned W. W. Powers, County Judge.

Trenton, Tennessee, May 10, 1915.  
W. W. POWERS,  
R. KILLOUGH,  
K. E. WITHERSPOON,  
Directors Drainage District No. 2,  
Gibson County.

## Notice

Sealed bids will be received by the Board of Town Commissioners of Hertford, North Carolina, up to 7:30 o'clock P. M. on June 8, 1915, and then opened, for the purchase of bonds of the Town of Hertford in the sum of fifty thousand dollars (\$50,000), said bonds to bear interest at the rate of 5 per cent. per annum, payable semi-annually on the 1st day of June and on the 1st day of December, respectively, of each year, which interest shall be evidenced by coupons attached to said bonds. Said bonds will mature ten thousand dollars thirty years from date of issue, ten thousand dollars thirty-five years from date of issue, ten thousand dollars forty years from date of issue, ten thousand dollars forty-five years from date of issue, and ten thousand dollars fifty years from date of issue. The purposes for which said bonds are issued are as follows: For water-works, sewerage system, thirteen thousand dollars; for electric-light system, twelve thousand dollars; for street paving, eight thousand dollars. All bids should be addressed to the Board of Town Commissioners of Hertford, North Carolina, and must be accompanied by a certified check, payable to their order, in the sum of five hundred dollars. The bonds are to be prepared and furnished at the expense of the purchaser. The Town of Hertford reserves the right to reject any and all bids.

For further information apply to W. E. White, Mayor, or W. C. Winslow, Clerk, Hertford, North Carolina.

W. E. WHITE, Mayor,  
W. C. WINSLOW,

[CONTINUED ON NEXT PAGE.]

# PROPOSALS

BOND ISSUES

BUILDINGS

PAVING

GOOD ROADS

**UNITED STATES CAPITOL**, Washington, D. C., May 6, 1915. Sealed proposals, in duplicate, for the following fuel for the United States Capitol power plant for the fiscal year ending June 30, 1916, will be received at the office of the Superintendent, U. S. Capitol Building and Grounds, until two o'clock P. M. on the first day of June, 1915, and at that hour opened in the presence of those bidders who elect to be present, viz.: 25,000 tons, more or less, of bituminous coal. Bidders must specify names of coal and location of mines from which obtained. All coal to weigh 2240 pounds to the ton, and to be delivered on the siding of the Capitol power plant, situated in Garfield Park, Washington, D. C., at such times and in such quantities as may be ordered by the undersigned. All coal will be inspected and weighed by a government inspector, designated by the undersigned, for which no charge will be made to the contractor. Each proposal must be accompanied by a certified check for \$100, payable to order of the Superintendent, U. S. Capitol Building and Grounds, to be forfeited to the United States upon refusal or failure of the bidder to enter into any contract within 10 days after being required to do so. Checks will be immediately returned to unsuccessful bidders, and to successful bidder upon execution of contract in accordance with these specifications and filing of bond for faithful performance of the conditions thereof, with satisfactory sureties. All coal must be shipped in self-cleaning hopper-bottom cars. If the contractor delivers coal in care of a type other than that heretofore described, the Superintendent reserves the right under conditions existing at that time to charge against the contractor the excess cost of handling the coal with the present equipment at the power plant. The government will take all necessary steps for testing, technically and practically, all the coals proposed. In event of delivery of contractor of unsatisfactory fuel, the undersigned may buy coal in open market, and excess in cost over contract price will be charged against the contractor. The right is reserved to reject any or all proposals. Bids should be indorsed "Proposals for Coal," and addressed to the Superintendent U. S. Capitol Building and Grounds. By order of House Office Building Commission. **ELLIOTT WOODS**, Superintendent U. S. Capitol Building and Grounds.

**PROPOSALS FOR CEMENT ROOFING**  
The Sealed proposals will be received at the office of the General Purchasing Officer, The Panama Canal, Washington, D. C., until 10:30 A. M. May 28, 1915, at which time they will be opened in public, for furnishing or furnishing and erecting the above-mentioned articles. Blanks and general information relating to this Circular (No. 925) may be obtained from this office or the offices of the Assistant Purchasing Agents, 24 State Street, New York City; 614 Whitney-Central Building, New Orleans, La., and 1086 North Point Street, San Francisco, Cal.; also from the U. S. Engineer Offices in the following cities: Seattle, Wash.; Los Angeles, Cal.; Baltimore, Md.; Philadelphia, Pa.; Pittsburgh, Pa.; Boston, Mass.; Buffalo, N. Y.; Cleveland, Ohio; Cincinnati, Ohio; Chicago, Ill.; St. Louis, Mo.; Detroit, Mich.; Milwaukee, Wis.; St. Paul, Minn.; Chattanooga, Tenn.; Louisville, Ky.; Mobile, Ala., and Galveston, Tex.; Commercial Club, Kansas City, Mo.; Chamber of Commerce, Quincy, Ill., and Commercial Club, Tacoma, Wash. F. C. BOGGS, Major, Corps of Engineers, U. S. A., General Purchasing Officer.

**TREASURY DEPARTMENT**, Supervising Architect's Office, Washington, D. C., May 5, 1915. Sealed proposals will be opened in this office at 3 P. M. June 14, 1915, for the construction, complete (including mechanical equipment), of the attendance quarters, disinfecting shed, oil house, wharf, etc., for the quarantine station at Tampa Bay, Fla. The buildings are one-story frame structures, with a total ground area of 7600 square feet. Drawings and specifications may be obtained from the custodian at Tampa Bay, Fla., or at this office, in the discretion of the Acting Supervising Architect. **JAS. A. WETMORE**, Acting Supervising Architect.

**TREASURY DEPARTMENT**, Supervising Architect's Office, Washington, D. C., May 3, 1915. Sealed proposals will be opened in this office at 3 P. M. June 14, 1915, for the construction, complete (including mechanical equipment, lighting fixtures, and approaches), of a one-story, basement, and mezzanine, brick and stone-faced building of 3450 square feet ground area, partly fireproof construction, tin roof, for the United States postoffice at Marlin, Tex. Drawings and specifications may be obtained from the custodian of the site at Marlin, Tex., or at this office, in the discretion of the Supervising Architect. **J. A. WETMORE**, Acting Supervising Architect.

**U. S. ENGINEER OFFICE**, Wilmington, N. C., April 26, 1915. Sealed proposals for furnishing and delivering about 15,700 tons of crushed stone will be received at this office until 1 P. M. May 26, 1915, and then publicly opened. Information on application. **H. W. STICKLE**, Maj., Engrs.

**U. S. ENGINEER OFFICE**, Wilmington, N. C., April 26, 1915. Sealed proposals for furnishing and delivering about 22,000 barrels of Portland cement will be received at this office until 12 M. May 26, 1915, and then publicly opened. Information on application. **H. W. STICKLE**, Maj., Engrs.

## PROPOSAL ADVERTISING INFORMATION

RATE: 20 cents per line per insertion.

PUBLICATION DAY: Thursday.

FORMS CLOSE 9 A. M. Wednesday. Copy received later cannot be published until issue of following week.

NIGHT LETTER: When too late to send copy by mail to reach us by 9 A. M. Wednesday, forward by night letter.

### THE DAILY BULLETIN OF THE MANUFACTURERS RECORD:

Published every business day; gives information about the industrial, commercial and financial activities of the South and Southwest.

The Daily Bulletin can be used to advantage when copy cannot reach us in time for publication in the Manufacturers Record before bids are to be opened, or when daily publications are necessary to meet legal requirements.

The same rate applies—20 cents per line per insertion.

## \$16,000 Road Bonds

Jackson, N. C.  
Sealed bids will be received until 10 o'clock A. M. May 18, 1915, for \$16,000 Jackson Township Road Bonds. Address  
**G. A. MOORE**,  
Secy. Board of Road Commissioners,  
Jackson, N. C.

## \$22,000 6% Bonds

Bids will be received until 11 o'clock May 24, 1915, by the Board of Drainage Commissioners of New Hanover County Drainage District No. 1 for \$22,000 6 per cent. Drainage Bonds. No bid less than par can be considered.  
Certified checks in the amount of \$500 must accompany each bid. For particulars write  
**M. F. H. GOUVERNEUR**,  
Sec. Board of Drainage Commissioners,  
Wilmington, N. C.

## \$60,000 5% Bonds

Laurel, Mississippi.  
Sealed proposals will be received and opened by the Mayor and Board of Commissioners of the City of Laurel, State of Mississippi, in the Mayor's office at the City Hall, on the 17th day of May, 1915, at 2 o'clock P. M., for the purchase of \$60,000 5 per cent. 20-year coupon bonds, interest payable semi-annually. Bonds in denominations of \$1000 each. Said bonds to build school-houses, street improvement and water-works improvement and extension. Bonds to be lithographed and furnished by purchaser. Each bid must be accompanied by certified check for \$500, addressed to the undersigned. The right to reject any and all bids is hereby reserved. Published by order of the Mayor and Board of Commissioners of the City of Laurel, Mississippi, this 4th day of May, 1915.

**D. F. GARDINER**,  
City Clerk.

## \$16,000 6% Warrants

Perry, Fla., May 7, 1915.  
Under and by virtue of an Act of the Legislature of the State of Florida, approved May 6, 1915, and by order of the Board of Public Instruction of Taylor County, Florida, passed May 3, 1915, notice is hereby given that said Board of Public Instruction will issue and offer for sale on Monday, June 7, 1915, \$16,000 of interest-bearing coupon county school warrants in denominations of \$100 to \$5000, to suit purchaser, interest at six per cent, payable semi-annually. Sealed bids will be received up to 12 o'clock M. of the above date. The Board reserves the right to reject any and all bids. For further information address F. S. Jackson, Secretary, Perry, Fla., to whom bids may be sent.

Done and ordered by the Board in regular session the 3d day of May, 1915.  
**J. M. SHEFFIELD**,  
Chairman.

Attest:  
**F. S. JACKSON**,  
Secretary.

## \$50,000 5% Road Bonds

**OF DE WITT COUNTY ROAD DISTRICT NO. ONE**, Cuero, Texas.  
Sealed proposals will be received by the Commissioners' Court of De Witt County, Texas, in the City of Cuero, Texas, until June 1, 1915, at 2 o'clock P. M., for the purchase of \$50,000 road bonds of Road District No. One of De Witt County, Texas.

Said bonds will bear date March 1, 1915, of the denomination of \$500 each, bearing 5 per cent. interest, payable semi-annually on the first days of September and March of each year. Said bonds mature forty years from their date, but may be redeemed at any time after twenty years. Principal and interest payable at Cuero, Texas; Austin, Texas, or New York City, New York, at the option of the holder.

All bids must be addressed to "Commissioners' Court of De Witt County, Cuero, Texas," and a certified check for \$750 must accompany bid. The right to reject any and all bids is reserved.

**R. J. WALDECK**,  
County Judge.

## \$20,000 6% Bonds

West Point, Miss., May 7, 1915.  
Sealed bids will be received up to 2 o'clock P. M. June 7, 1915, by the Board of Supervisors of Clay County, Mississippi, for the issue of \$20,000 6 per cent. District Two Road Bonds of said county, interest payable semi-annually in New York. Said bonds are exempt from taxation. Certified check for \$250 to accompany each bid. The Board reserves the right to reject any or all bids.  
**L. J. HOWARD**,  
Clerk of the Board of Supervisors.

## Street Paving

**OFFICE OF THE PAVING COMMISSION.**  
Baltimore, Maryland.

Separate sealed proposals, executed in duplicate, addressed to the Board of Awards, care of the City Register, will be received by him at his office in the City Hall until 11 A. M. Wednesday, May 19, 1915, to grade, curb and pave with Sheet Asphalt and Granite Block, all on a concrete base, the streets listed in the following contracts:

**Sheet Asphalt Paving and Granite Block Repaving Contract No. 115.**

From	To
Holliday St.	Fayette St.
Fayette St.	Gulford Ave.
Intersection Fayette and Caroline Sts.	3000 sq. yds.
Sheet Asphalt Repaving	725 sq. yds.
Wood Block	455 sq. yds.
Certified Check	\$4300

**Granite Block Repaving Contract No. 116.**

From	To
Philpot St.	Point St.
Block St.	Dock St.
Wills St.	Philpot St.
Bethel St.	Baltimore St.
Sharp St.	Pleasant St.
Granite Block	3300 sq. yds.
Certified Check	\$4500

**Granite Block Paving Contract No. 117.**

From	To
Pratt St.	Howard St.
Granite Block	6400 sq. yds.
Certified Check	\$700

The figures above represent the approximate quantities of the principal items appearing in the contracts.

Specifications and proposal sheets can be obtained upon application to the office of the Paving Commission, City Hall. A deposit of \$5 will be required for a specification covering each contract. This will not be refunded unless a bid is filed.

Plans and profiles are on file for the information of bidders in the office of the Consulting Engineer.

The Board of Awards reserves the right to reject any and all bids. A certified check of the bidder on a Clearing-house bank, drawn to the order of the Mayor and City Council of Baltimore to the amount as recited above, must accompany each bid.

The successful bidder will be required to furnish bond and to comply with the City Charter respecting contracts.

By order of the Paving Commission.  
**R. KEITH COMPTON**,  
Chairman and Consulting Engineer.

**J. MYERS HEDIAN**,  
Secretary.  
**JOHN HUBERT**,  
Acting Pres. Board of Awards.

## To Road Contractors

Lake Charles, La.  
Sealed bids will be received by the Police Jury at the office of the Highway Department, Lake Charles, La., until 11 o'clock A. M. June 1, 1915, for grading and graveling approximately two miles of road from the intersection of Ryan and Alvin Streets, Lake Charles, La., to the south end of the proposed Calcasieu River Bridge. A deposit of \$5 is required for copies of plans and specifications. The right is reserved to reject any or all bids.

**E. C. HOUSE**,  
Clerk to the Police Jury.  
**FRED SHUTTS**,  
Parish Engineer.

## Road Grading

Marshall, N. C.  
Sealed bids for grading and draining approximately 1.7 miles of road will be received by the Madison County Highway Commission at their office in Marshall, N. C., until 2:30 o'clock P. M. Tuesday, May 25, 1915. Profiles and specifications may be seen in the office of the County Road Engineer, Marshall, N. C.  
Each bid must be accompanied by a certified check for \$350 as an evidence of good faith and that the bidder will enter into contract, if awarded same, within fifteen days; and in case he fails to enter into contract and furnish satisfactory bond within the specified time, his check is to be forfeited to the Madison County Highway Commission. The right is reserved to reject any or all bids.

**J. B. CLINGMAN**,  
County Road Engineer.

## Highway

Franklin, La.  
Sealed proposals will be received and opened by the Road Commission of the Parish of St. Mary, La., on May 17, 1915, at one o'clock P. M., for the furnishing of material and the construction of approximately fifty miles of surfaced highway.  
Plans and specifications will be furnished to responsible parties upon application to W. H. Latham, Secretary of Road Commission, Franklin, La.

## Road Construction

**COUNTY COMMISSIONERS' DISTRICT NO. 4, LAKE COUNTY, FLORIDA.**

Tavares, Fla.  
Sealed proposals will be received by the Board of County Commissioners of Lake County, Florida, at the office of the County Clerk, in the Courthouse at Tavares, Florida, for the construction of a system of roadways in County Commissioners District No. 4, Lake County, until 12 noon June 7, 1915, at which time they will be opened and read publicly. The work includes the furnishing of all labor, material and machinery and equipment of every kind necessary to construct the roadways according to plans and specifications. The approximate quantities are as follows:

38,973 lineal feet roadway
25,988 cubic yards excavation.
112,024 square yards modified asphalt pavement.
7 bridges to be raised.
50 12" drains.
19,02 cubic yards concrete.
500 pounds steel.

Each bid must be accompanied by a certified check on a State or national bank of Florida, or a national bank of any other State, for 5 per cent. of the amount bid, drawn to the order of the County Clerk, H. H. Duncan.

Plans and specifications may be seen at the office of the County Clerk or the Engineers. Specifications may be obtained from the County Clerk or the Engineers. Copies of plans may be obtained from the Engineers at \$15 per set to cover their actual cost.

The desire of the Board is to let the contract in as large sections as possible. The right is reserved to reject any or all bids.

**M. V. SIMPSON**, Commissioner.  
**H. H. DUNCAN**, Clerk.  
**THE J. B. MCCRAHY CO.**, Engineers,  
1408-17 Third Natl. Bank Bldg.,  
Atlanta, Ga.

## Paving and Sewers

Clarksville, Texas.  
Sealed proposals will be received by the Board of Aldermen of the City of Clarksville, Texas, at the City Hall, until 5 P. M. Monday, May 31, 1915, and publicly opened and read immediately thereafter, for furnishing all materials therefor and constructing certain street improvements in the said city. The following items represent approximately the work to be done:

1. Excavation for grading, 512 cu. yds.
2. Vertical Fiber Brick Pavement on Concrete base, 13,531 sq. yds.
3. Asphalt Macadam Pavement, 7230 sq. yds.
4. Concrete Pavement, 1897 sq. yds.
5. Plain Concrete Curb, 8410 lin. ft.
6. Combined Concrete Curb and Gutter, 760 lin. ft.
7. 10" Vitrified Pipe Sewer, 305 lin. ft.
8. 12" Vitrified Pipe Sewer, 60 lin. ft.
9. 15" Vitrified Pipe Sewer, 44 lin. ft.
10. 18" Vitrified Pipe Sewer, 370 lin. ft.
11. Stone Headers, 1300 lin. ft.
12. Catch-Basins, 8.

Certified check required with each bid, \$4000, on any bank in the City of Clarksville, Texas.

Plans and specifications are on file at the office of the City Clerk, or can be had from the Engineer upon payment of \$15 for same, half of which amount will be refunded upon safe return of plans and specifications.

Or specifications alone can be had upon payment of \$5, half of which amount will be refunded upon safe return of specifications. The city reserves the right to reject any and all bids.

**C. E. TERRY**, Mayor.  
**JOHN WEBB**, City Clerk.  
**E. F. PETERSEN**, Engineer,  
Muskegon, Okla.  
**JNO. W. O'NEILL**,  
**W. P. CORNELIUS**,  
**E. L. CANTERBURY**,  
Improvement Committee.



# PROPOSALS

SEWERS

WATER-WORKS

ELECTRIC LIGHT PLANTS

BRIDGES

## Street Paving

Lake City, Fla.

Sealed proposals will be received until May 31, 1915, for paving certain streets in Lake City, Florida, wherein all standard paving surfaces will be considered and wherein an expenditure of Twenty Thousand Dollars is contemplated. Copies of instructions to bidders, general stipulations and specifications, forms of proposal, contract and bonds will be furnished upon application to the undersigned, accompanied by one dollar.

BOARD OF PUBLIC WORKS,  
Lake City, Florida.  
J. W. LAYNE, Secretary.  
A. S. MILLER, Engineer.

## Water-Works Improvements

Plant City, Fla.

Sealed proposals will be received by the Board of Public Works of Plant City, Florida, at the office of the Clerk, until the fifth day of June, 1915, for furnishing all material and machinery for water-works improvements, at which time they will be opened and read publicly.

The approximate quantities are as follows:

Station Equipment, Plan No. 1.  
11,500-gallon Compound Condensing Pumping Engine.  
1,300 cubic feet Compound Condensing Two-Stage Air Compressor.  
100 H. P. Boiler, steel casing.  
120 H. P. Open Heater.  
1 Feed Pump.  
1 Air Lift.

Station Equipment, Plan No. 2.  
250 H. P. Oil Engines, direct connected to 250 G. P. M. Triplex Pumps.  
150 H. P. Oil Engine, belt connected to 130 cu. ft. Two-Stage Air Compressor.  
10,000-gallon Steel Oil Storage Tank.  
Station Equipment, Plan No. 3.  
100 H. P. Oil Engine, direct connected to 10,000 G. P. M. Triplex Pump.  
10,000-gallon Steel Oil Storage Tank.  
Each bid must be accompanied by a certified check for five per cent. of amount bid, drawn to the order of J. L. Young, Chairman.

Specifications may be obtained from E. W. Mays, Superintendent Water-works, Plant City, Fla.

The right is reserved to reject any or all bids.

J. L. YOUNG,  
Chairman Board of Public Works.

## Water-Works Extension

CAST-IRON PIPES, SPECIAL CASTINGS, VALVES, ETC.  
PIPE LAYING.

Frederick, Md.

Sealed proposals, addressed "To the Board of Aldermen of the City of Frederick, Frederick County, Maryland," will be received until 2 o'clock P. M. on Friday, May 28, 1915, at the City Hall, for furnishing and laying 12-inch cast-iron pipes, special castings, valves, etc.

A certified check for \$100 must accompany each proposal.

The Board of Aldermen reserves the right to reject any or all bids.

Previous to the above date specifications and information can be obtained from Mr. J. H. Schmidt, Clerk to the Mayor and Aldermen; Mr. George A. Burck, Water-Works Superintendent, at Frederick, and

WILLIAM H. BOARDMAN, Engineer,  
426 Walnut Street, Philadelphia, Pa.

## Water-Works and Sewer Machinery and Material

New Smyrna, Fla.

Sealed proposals will be received by the City of New Smyrna, Florida, at the Town Hall, for furnishing all material and machinery for a water-works and sewerage system, until 3.30 P. M. May 26, 1915, for machinery, tower and tank, and water-softening plant, other material on May 19, 1915, at which time they will be opened and read publicly.

The pumping plant will be driven either by steam, oil engines or motors. Bids are desired on all equipment. The type of equipment to be purchased to be decided after bids are in.

### Steam Plant.

2 80 H. P. boilers, steel casing.  
1 boiler feed pump and heater.  
250 G. P. M. compound pumps.  
Oil-burning equipment for two boilers.  
1 10,000-gallon fuel oil tank, horizontal type.

### Oil-Engine Plant.

2500 G. P. M. triplex or duplex pumps, driven by  
250 H. P. oil engines burning either crude or distillate fuel oil.  
1 10,000-gallon fuel-oil tank, horizontal type.

### Electric-Driven Plant.

2500 G. P. M. triplex pumps driven by  
250 H. P. 2300-volt motors.

### Materials.

1 75,000-gallon tank on 75-foot tower.  
1 water-softening plant, 150,000 gallons 24 hours.

405 barrels cement.  
162 tons stone.  
11,654 pounds steel reinforcement.

52 barrels lime.  
1,090 lineal feet 18" sewer pipe.  
2,270 lineal feet 15" sewer pipe.

5,920 lineal feet 12" sewer pipe.  
19,315 lineal feet 8" sewer pipe.

Necessary Y's and specials.  
27 5" automatic flush tanks.  
52 perforated manhole rings, covers, dust

pans and rods, complete.  
27 solid manhole rings and covers.

148,780 brick.  
1,500 pounds jute for sewers.  
1,300 pounds jute for water pipe.

23,200 pounds lead.  
5,000 lineal feet 6" soil pipe.  
40 hydrants.

9 8" H. E. gate valves and boxes.  
17 6" H. E. gate valves and boxes.  
22 1 1/2" gate valves and boxes.

11,000 feet 1 1/2" galvanized-iron pipe.  
Each bid must be accompanied by a certified check for 5 per cent. of the amount bid, drawn to the order of G. W. Brown, Chairman Board of Public Works.

Specifications may be obtained from the Engineers.

The right is reserved to reject any or all bids.

G. W. BROWN,  
Chairman Board of Public Works.

THE J. B. McCARY CO., Engineers,  
1408-17 Third Natl. Bank Bldg.,  
Atlanta, Ga.

## Sewer

Durham, N. C., May 1, 1915.

Sealed proposals will be received until 8 P. M. May 17, 1915, by City of Durham for sewer outfall.

The work will consist of approximately 1900 feet 8-inch sewer, 6000 feet 12-inch sewer. Plans and specifications on file at City Engineer's office.

The right is reserved to reject any and all bids. Certified check for \$100 required with proposal.

(Signed) W. G. BRADSHAW,  
Chm. St. Comm.

GEO. W. WOODWARD,  
City Clerk.

## Sewerage and Water-Works Construction

NOTICE TO BIDDERS.

Caruthersville, Mo.

Separate sealed bids, addressed to the Hon. Mayor of the City of Caruthersville, Mo., and endorsed, respectively, "Proposal for Sewerage System" and "Proposal for Extension and Improvements of Water-Works," will be received until 8 P. M. June 2, 1915, at which time they will be publicly opened and read.

Certified checks, \$1500 for water and \$3000 for sewers, drawn on local bank, and payable to the Treasurer of the City of Caruthersville, Mo.

Sewerage work consists approximately of 7 miles of 8" to 18" pipe, 4' to 22' deep; 81 manholes, 25 flush tanks, sewage-pumping station, with motor-driven centrifugal pumps and Mississippi River outfall.

Water-works improvements consist approximately of 3 miles of 4" and 6" cast-iron water pipe with lead joints, 24 hydrants, 18 valves with boxes. Pumping station improvements consist of resetting second-hand boiler and feed pump, furnishing and setting new feed pump and heater, piping, and connecting existing pumps to wells. Well already contracted for.

Sets of plans and specification may be obtained from the Engineer upon deposit of \$25 for sewers and \$15 for water, the deposit to be refunded upon return of plans and specification in good order by June 12. A bid will be considered a return of the specification.

The city reserves the right to reject any or all bids.

W. D. BYRD,  
Mayor.

FRANK L. WILCOX, Engineer,  
Syndicate Trust Bldg.,  
St. Louis, Mo.

## To Bridge Contractors

Lake Charles, La.

Sealed bids will be received until 11 o'clock A. M. Tuesday, June 1, 1915, at the office of the Highway Department, Calcasieu Parish, Lake Charles, La., for the construction of a Reinforced Concrete Arch Bridge, with a Double-Leaf Strauss Trunnion Bascule Span, over the Calcasieu River, near Lake Charles.

Each bidder shall file with his bid a sworn statement setting forth the location and description of a similar structure or structures which he has erected as proof of his ability and experience to undertake the present work.

Bidders shall file with their bids a surety company bond for an amount equal to the total bid, and this bond shall guarantee the execution and completion of the contract if awarded.

Bid, bond and sworn statement shall be enclosed in a sealed envelope bearing the bidder's name and marked "Bid for Calcasieu River Bridge."

Plans and specifications are on file at the office of the Highway Department and the office of this paper, and copies of same may be obtained upon payment of ten dollars (\$10), same to be refunded upon the receipt of a bona fide bid and the return of the plans and specifications.

The Police Jury reserves the right to reject any or all bids.

C. E. HOUSE,  
Clerk to the Police Jury.  
F. H. FRANKLAND,  
Bridge Engineer.

## Drainage Ditches

Sealed proposals for the construction of drainage improvements in New Hanover County Drainage District No. 1, Wilmington, N. C., will be received by the Board of Drainage Commissioners up to noon on the 24th day of May, 1915, at their office in Wilmington, N. C.

The work to be done consists of nine miles of ditches; average depths 5 ft.; average bottom width 1.5 ft.; side slope 1 to 1; 53,000 cu. yds. excavation, approximately; four 55-ft. metal culverts; 10 small wooden bridges.

Work to be completed in 200 working days. A certified check in the amount of \$500, made payable to the Board of Drainage Commissioners of New Hanover County Drainage District No. 1, must accompany each bid.

Plans and specifications may be seen at the office of J. L. Becton, Engineer, Wilmington, N. C., or secured upon receipt of \$2.50 to cover prints, etc.

The Board reserves the right to reject any or all bids.

Bids on a \$22,000 bond issue for this work are invited the same day as proposals. In case they are not disposed of at par, the contractor will bid expecting to handle the issue.

C. VAN LEUVEN, Chairman;  
M. F. H. GOUVERNEUR, Secy.,  
Wilmington, N. C.

J. L. BECTON, Engineer,  
Wilmington, N. C.

## Chimney and Foundation

New Orleans, La.

Sealed proposals will be received by the Board of Commissioners of the Port of New Orleans at their office, Suite 200 New Orleans Court Building, until May 19, at eight o'clock P. M., and publicly opened, for the construction of a tapering reinforced concrete chimney and foundation for the Cotton Warehouse and Terminal, located on the east bank of the Mississippi River, between Valence and Soudat streets.

Deposit required with the proposal, \$500. Bond required with contract.

On and after May 10 plans and specifications will be on file at the office of Ford, Bacon & Davis, No. 521 Canal street, New Orleans, La., by whom full sets will be furnished to prospective bidders on a deposit of \$10, which will be returned to bidders who submit proposals, on return of set in good condition.

The right is reserved to reject any and all bids.

(Signed) ERNEST M. LOEB,  
President.

## Excavating and Filling

Miami, Fla.

Sealed bids will be received for the excavation of 10,000 yards of rock for wall 2500 feet long, and 315,000 yards of brick and sand fill. For full particulars address J. H. Tatum, Miami, Fla.

## Subway

Miami, Fla.

Wanted—Estimates on a subway 30 feet wide, 40 feet extreme depth, 15 feet from base of tunnel to top of arch, 1200 feet in length. For full particulars address J. H. Tatum, Miami, Florida.

## Iron and Steel Work Contracts.

Contracts amounting to about \$10,000 lately awarded to the Roanoke Iron Works, Roanoke, Va., include ornamental-iron work for the Ocean Steamship Co.'s building, Savannah; iron and steel work of the American Trust Co.'s building, Savannah; ornamental-iron work of the Lynchburg (Va.) National Bank building, and ornamental-iron work in the postoffice at Carnegie, Pa.

## Shipping Machinery to Cuba.

The Dow Wire and Iron Works, Louisville, has recently shipped a sanitary cup conveyor and riser to A. H. de Beche at Havana, Cuba. This machine rinses the bottles inside and out, and delivers them to the workmen at the bottling machines. The specially constructed wire cups or receptacles for the bottles are claimed not to break or chip the mouth of the bottles when being placed in the conveyor.

## Western Electric Co.'s New Kansas City Warehouse.

New quarters have been secured for the Kansas City distributing house of the Western Electric Co., 463 West St., New York, at 608-610 Wyandotte St., Kansas City, Mo. This new warehouse, which is opposite the old headquarters of the company, is five

[Continued on Page 73.]

## INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

### Coal-Washing Machinery.

Montgomery Coal Washing & Manufacturing Co., Inc., of Birmingham, Ala., manufacturer of coal and ore washing machinery, reports the sale of apparatus for a 300-ton washery to the Wilkenson Coal & Coke Co. at Wilkenson, Wash.

### Asbestos Roofing Contracts.

Contracts for applying asbestos roofing on the tobacco warehouses being erected by F. V. Johnston, Greenville, N. C., and C. B. Townsend, Farmville, N. C., have been awarded to the Chesapeake Roofing & Pipe Covering Co., Inc., 30 Light St., Baltimore, distributor of roofing, waterproofing, mastic and cork tile flooring, and all classes of pipe and boiler coverings.

### Foreign Sales Reported

H. L. Barnitz, sales agent of the International Oxygen Co., 115 Broadway, New York, has recently closed with the Tokio Electric Co., Tokio, Japan, for a large installation of the I. O. C. cells for the production of oxygen and hydrogen gas. This is one of several foreign installations made by him.

### Change of Office Address.

Western offices of the Cortright Metal Roofing Co. of Philadelphia, formerly located at 160 N. Fifth Ave., Chicago, have been removed to the Rand-McNally Bldg., 538 S. Clark St. Change in office location in no way interferes with arrangements for carrying a large stock of various shingles at the company's Chicago depot, permitting prompt

shipment to all parts of the Middle West or Pacific coast points.

### Steel Rolling Door Contract.

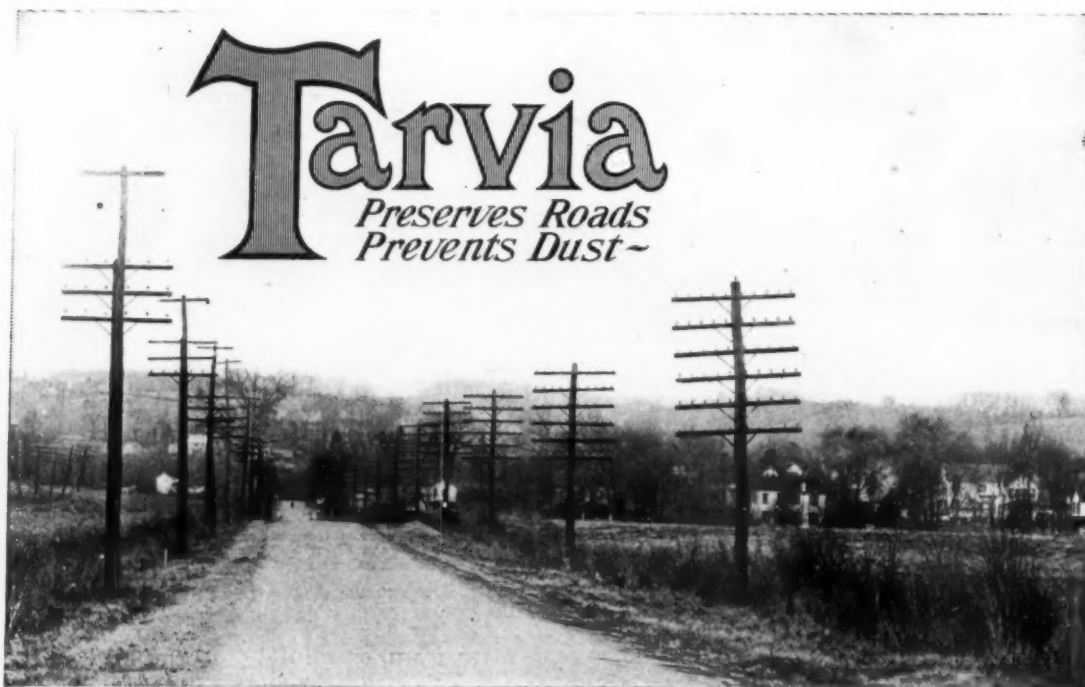
Ford, Bacon & Davis, 521 Canal St., New Orleans, engineers in charge of construction of the cotton warehouses for the Board of Commissioners of the Port of New Orleans, writes that the Kinnear Manufacturing Co. of Columbus, O., was the successful bidder, at \$86,430, on the steel rolling-door equipment to be installed.

### Opens a Chicago Branch.

On account of the greatly increased volume of business secured in the Middle West, the E. W. Bliss Company of Brooklyn has opened, for the convenience of its customers, offices and warehouses at 622 W. Washington St., Chicago. A line of standard presses and parts will be kept in stock for immediate delivery.

### Obtains a \$3,000,000 Contract.

One of Baltimore's leading contracting corporations has secured a big contract for construction at Buffalo. This contract involves building the Lehigh Valley Railroad's passenger and freight terminals, estimated to cost more than \$3,000,000. In competition with more than seventy contractors, the contract was awarded to J. Henry Miller, Inc., Baltimore, Md.



**Tarvia**  
Preserves Roads  
Prevents Dust~

## 40 Miles of Tarvia Roads—

Baltimore and Washington Boulevard.  
Treated with "Tarvia B".

The great automobile boulevard between Washington, D. C., and Baltimore, Md., is tarviated from end to end.

The Tarvia treatment has given the road a firm, waterproof, durable surface—free from dust and mud—and one that is not affected by the wear and tear of swift motor car traffic.

Another great Maryland State road

—the Baltimore-Annapolis Boulevard—also is tarviated for about twenty miles of its twenty-eight-mile length, and results have been most satisfactory.

Owing to its very low cost and satisfactory results, the Tarvia form of road treatment and construction is growing more popular every year.

### Special Service Department

This Company has a corps of trained engineers and chemists who have given years of study to modern road problems. The advice of these men may be had for the asking by anyone interested.

If you will write to the nearest office regarding road problems and conditions in your vicinity, the matter will have prompt attention.

### BARRETT MANUFACTURING COMPANY

New York Chicago Philadelphia Boston St. Louis Cleveland Cincinnati  
Pittsburgh Detroit Birmingham Kansas City Minneapolis Salt Lake City Seattle  
THE PATERSON MFG. CO., Limited: Montreal Toronto Winnipeg Vancouver St. John, N. B. Halifax, N. S. Sydney, N. S.





[Continued from Page 71.]

stories high and contains about 52,000 square feet of floor space, providing ample facilities for storage and shipping purposes, display-rooms and offices.

#### A. F. Daum Company in New Building.

The A. F. Daum Company, Pittsburgh, manufacturer of reliable cartridge and plug fuses for electric light and power circuits, is now occupying its new building, which is said to have more than double the floor space of its former quarters. The company announces that with the increased facilities provided at the new location, it is able to guarantee to customers prompt shipment of any and all orders.

#### Sawmill Equipment.

In letting belting and saw equipment contracts the Big Salkheatchie Cypress Co., Varnville, S. C., reports that the E. C. Atkins Co., Indianapolis, Ind., was the successful bidder for furnishing the saws; the Peerless Rubber Co., New York, the rubber belts, and the Druid Oak Belting Co., Baltimore, the waterproof leather; also three belts going to the Graton & Knight Manufacturing Co. of Worcester, Mass., manufacturer of "Spartan" steamproof leather belting.

#### Sale of Cotton Mill.

All the property, both real and personal, of the Enoree Manufacturing Co., Spartanburg, S. C., including 720 acres in Spartanburg and Laurens counties, fully-equipped cotton mill, mill village dwellings and tenement-houses, two standard cotton warehouses, brick store and stock, contents of hotel and livery stable, together with water-power and steam auxiliary plant; also an undeveloped water-power on the Tyger River in Spartanburg county will be sold to the

highest bidder June 7, 1915, at the County Courthouse, Spartanburg. Further particulars regarding the sale may be obtained by addressing A. M. Law, receiver, Spartanburg.

#### Removal of New York Branch.

The New York branch of the Jeffrey Manufacturing Co. of Columbus, O., has been removed from 77 Warren St. to 50 Dey St., adjoining the Hudson Terminal. At its new location, the company reports, will be carried the largest combined stock of power-transmission machinery, elevating and conveying appliances, etc., in New York city. George H. Mueller, assistant sales manager of the Jeffrey Company, is in charge of the New York office, and is assisted by a large engineering and sales force.

#### Takes Over Foundry Equipment Business.

Whiting Foundry Equipment Co., manufacturing engineer and designer of complete foundry plants, general office and works, Harvey, Ill., writes that it has taken over the foundry equipment business of the Central Iron Works of Quincy, Ill., and is prepared to furnish repairs for this equipment. Exhaust system equipment, dust arresters and water cinder mills formerly manufactured by the Central Iron Works will be added to the foundry equipment line already handled by the Whiting Foundry Equipment Co.

#### Bessemer Fire Brick Contracts.

Recent contracts closed by the Bessemer Fire Brick Co. of Birmingham include: Hollow tile floors and partitions for the Connally Bldg., Atlanta, of which Wells Bros. Company, New York, has general contract and the Payne Fireproofing Co., Birmingham, is to erect all hollow tile work; hollow tile for exterior walls of the Stuart-

Monk Apartment, Montgomery, Stuart-Monk Contracting & Realty Co., Montgomery, contractor and owner; hollow tile floors and partitions for the Courthouse at Walthall, Miss., Little-Cleckler Construction Co., Aniston, general contractor; hollow tile for exterior walls of two residences at Augusta, Ga., C. B. Holley, general contractor, Augusta; hollow tile partitions of Prescott High School building, Memphis; floors and partitions of hollow tile for the Municipal building, Rome, Ga., J. F. Dupree, general contractor, Rome; hollow tile floors and partitions of the Telephone Bldg., Meridian, Miss., Dabbs & Wetmore, general contractors, Meridian; Noah's Ark Bldg., New Orleans, John Riess, general contractor, New Orleans; postoffice, Canton, Miss., Algernon Blair, Montgomery, Ala., general contractor, and courthouse, Clearwater, Fla., J. S. Miller Construction Co., general contractor, Clearwater.

#### TRADE LITERATURE

##### Sprague Electric Fans.

People will soon find it necessary to give consideration to electric fans for promoting comfort during hot weather. The well-known Sprague electric fans have been on the market for twenty-three years, and they are described in an illustrated booklet being distributed by the Sprague Electric Works of the General Electric Co., 527 W. 34th St., New York.

#### Digging and Mixing Clay.

There are various industries in which it is required to dig and mix clay. Managers of plants of this character will find interesting data for their consideration in "Digging and Mixing Clay—One Operation," distributed by the Marion Steam Shovel Co., Marion, O. The publication named presents information regarding the efficiency of Marion steam shovels and other equipment in general use throughout the world. Marion products include railroad and revolving steam shovels, electric and traction shovels, elevator and hydraulic dredges, clam-shell and orange-peel excavators, railroad ditchers and log loaders, etc.

#### Vulcan Motor Trucks.

Each day brings an increasing demand for motor trucks driven by power, and leading engineers have given their attention to perfecting these classes of vehicles. The Vulcan truck is a heavy duty vehicle which has been giving satisfaction to exacting purchasers for several years past. It is built for service and is designed to successfully meet stresses and strains to which such a vehicle is subjected when transporting heavy loads, with such success that it is offered as rendering maximum service every day in the year. A complete description, accompanied by photographic views of the Vulcan motor truck, is presented in a publication issued by the Driggs-Seabury Ordnance Corporation, Sharon, Pa., builder of the Vulcan trucks.

### Your chance to open up a new market for your goods in SOUTH AMERICA

If interested, write at once to

FRIEDR. W. LUTZ

RICHMOND, VA.

Personal Representatives in Brazil and the Argentine Republic.

## Special Advertisements of General Interest.

### Sale Of ENOREE COTTON MILLS

Under and by virtue of order of Court of Common Pleas, dated May 3, 1915, in the case of W. S. Montgomery et al, Plaintiffs, vs. Enoree Manufacturing Company, Defendant, I will sell to the highest bidder at public outcry on June 7, 1915, at 12 o'clock noon, at the County Courthouse, Spartanburg, S. C., all of the property, both real and personal, of the Enoree Manufacturing Company, including 720 acres, more or less, in Spartanburg and Laurens counties, and the Cotton Mill thereon, containing 36,000 spindles, with full equipment of machinery and mill village dwellings and tenement-houses, two standard cotton warehouses, brick store, and stock of machinery, hotel and livery stable. Also, all supplies, live stock, etc., together with the water-power by which the mill is operated in addition to the steam-power plant auxiliary thereto. Also, an undeveloped water-power of 371 acres, more or less, on Tyger River, in Spartanburg county, with certain rights of overflow, including Hills Shoals.

The above property to be sold as a whole for cash. No bid for less than \$350,000 will be considered, and a deposit of \$5000 in cash or a check properly certified by a satisfactory bank in the State of South Carolina will be required before any bid can be submitted.

For further particulars as to the property and terms of sale, reference is craved to the decree on file in said Court.

A. M. LAW,

Receiver Enoree Manufacturing Co.

Spartanburg, S. C.

### Bankrupt Sale of Mill Site, Machinery and Other Property of Tolson Lumber and Manufacturing Company

Pursuant to order of sale rendered in Bankrupt Court by S. W. Smallwood, Referee in Bankruptcy, on Saturday, the 24th day of April, 1915, in the matter of Tolson Lumber and Manufacturing Company, Bankrupt, the undersigned Trustee will sell for cash at public auction, at the office of Tolson Lumber and Manufacturing Company, on East Front street, on Monday, June 7, 1915, at 12 M. o'clock, the following described property, to wit:

Certain lot or parcel of land lying and being in the city of New Bern, Craven county, on the east side of East Front street, bounded on the north by the lands of the Atlantic Coast Line Railway Company, on the east by Neuse River, on the south by the lands of the Neuse Lumber Company and J. B. Aldridge (the latter being formerly owned by Enoch Wadsworth), and on the west by East Front street, the same being the present work site and lumber plant of the Tolson Lumber and Manufacturing Company.

Also, all machinery, belts, tools, office furniture and fixtures and all equipment and appliances connected with the operation of said plant, and all other improvements upon said property.

The above property will be sold either in parcels, lots or as a whole and free from liens and encumbrances. Same will be sold subject to approval of Bankrupt Court, and title will not pass unless sale is confirmed by said Bankrupt Court.

Private bids will be received by the Trustee and opened on day of sale and used in connection with said sale.

This 5th May, 1915.

T. D. WARREN, Trustee, New Bern, N. C.

To keep in touch with Southern Development, read the Manufacturers Record.

### Public Sale of EWALD IRON COMPANY

The Fidelity and Columbia Trust Company, Executor and Trustee under the will of L. P. Ewald, will, on Wednesday, June 2, 1915, at eleven o'clock A. M., at the Exchange Hall of the Board of Trade in Louisville, Kentucky, sell at public auction to the highest bidder 2955 shares of the capital stock of the Ewald Iron Company of Louisville, Kentucky, a corporation organized under the laws of Kentucky.

The total capitalization of the Company consists of 3000 shares of common stock, of which there has been issued 2955 shares, each share being of the par value of \$100. Forty-five shares remain in the treasury of the Company to be issued in accordance with the terms of a contract between the Ewald Iron Company and A. J. Sills.

The sale has been authorized by the Jefferson Circuit Court, Chancery Branch, Second Division.

No bid of less than \$214.17 per share will be entertained, and the Executor and Trustee reserves the right to withhold from sale 770 shares if, after the final acceptance of a bid, it elects so to do. Each bidder will be required to deposit with the Executor and Trustee, in advance of the bidding, a check for \$60,000, certified by some bank or trust company doing business in Louisville, Kentucky, as an evidence of good faith, and in order to assure compliance by the successful bidder with the terms of sale. Checks deposited by unsuccessful bidders will be returned to them, and the check deposited by the successful bidder will be credited on the purchase price when the terms of sale are fully complied with. In case the successful bidder fails or refuses within ten days to comply with the terms of sale, said check so deposited by him will be forfeited to the Executor and Trustee for the use and benefit of the estate of L. P. Ewald as liquidated damages and not as penalty.

The terms of sale will be one-third cash and the balance in three equal installments due on or before six, twelve and eighteen months, respectively. For the deferred payments the purchaser will execute to the Executor and Trustee his three promissory notes, of equal amount, due on or before six, twelve and eighteen months from their date, respectively, and bearing six per cent. interest from their date. To secure the payment of said notes, and each of them, a lien will be retained on all the shares of stock sold, and said shares must be deposited with the Executor and Trustee, to be held by it until said indebtedness is fully paid. The notes executed by the purchaser shall be the usual form of collateral note now used by the Fidelity & Columbia Trust Company, and each note shall contain a provision that on failure to pay any note or interest for thirty days after same becomes due, the Trustee may declare all of the unpaid notes to be due and may proceed to enforce payment thereof by a sale of the stock as provided in the notes.

There will be refunded to the Ewald Iron Company, upon compliance with the terms of sale, the sum of \$30 on each share of stock sold, being the amount of a dividend declared by the Ewald Iron Company on the 16th day of January, 1915. The purchaser shall have the right to pay the full purchase price in cash.

Prospective purchasers shall have the right to inspect a statement showing the operations of the Ewald Iron Company for the period of five years last past, said statement having been prepared by James S. Escott in February, 1915, and filed in the Jefferson Circuit Court, Chancery Branch, Second Division, in action No. 55908, styled Columbia Trust Company, Executor, etc., vs. Philip L. Ewald, etc., and certified by the Executor and Trustee to be correct. Prospective purchasers shall also have the right to inspect the plant of the Ewald Iron Company on any day from May 22, 1915, to June 1, 1915.

## Special Advertisements of General Interest.

### Factory Building For Sale

Factory, 5 stories, basement and attic—68½x285, and outside elevators, stairways and fireroom; 2 90 H. P. boilers, 80 H. P. engine; fronts on three streets and navigable river; dock on premises; short haul to Penn. R. R. freight depot; building has ample light; is very strongly constructed; trussed slate roof; no posts on fifth floor. The greatest bargain in central New Jersey.

Address Box 33, NEW BRUNSWICK, N. J.

### WOODWORKING PLANT FOR SALE

Complete woodworking plant with all modern machinery and glueing equipment in first-class condition, ready to run, including five drykilns, two-story frame buildings, steam power, electric lights, railroad siding.

Plot of ground 1½ acres.

This mill, situated at Ashland, Ky., has been making dimension stock of all different kinds, and can easily be converted into a Moulding and Flooring Mill. Abundance of oak and other hardwoods in the vicinity to operate a plant for many years.

A large stock of seasoned lumber in yards.

Railroad and water facilities.

Parties interested, address Woodworking Plant, care Manufacturers Record, Baltimore, Md.

### Manufacturers, Users, Producers, Trade Publications—Attention!

Enterprise just starting wants to get in touch with Coal Tar By-Products and Relative Industries. Address

**COAL TAR**  
Care Manufacturers Record, Baltimore, Md.

### Merchants Looking for Better Location

with all conditions in their favor, should write me about new EARLE BUILDING, Birmingham, Ala.—five stories and basement, strictly modern, full fireproof construction, in heart of city, and one hundred feet from best improved corner in the South.

**R. A. TERRELL**  
503 Title Guarantee Bldg. Birmingham, Ala.

If you wish to keep posted on the progress of the South read the

### MANUFACTURERS RECORD

Price \$4.00 a year, or six months for \$2.00

### SALES AGENCY

In New England territory would like to represent reliable concern in iron or machinery line, straight commission basis. Prompt attention to all inquiries. Have storage facilities—salesmen on road—equipped with business autos. Write for information. Address

**VULCAN CO.** Allston Sta., Boston

### FOR SALE Exceptional Plant

Fully equipped with Boilers, Engine, Electric Light Plant, Sprinkler System, all Piping, Shafting, Pulleys and Main Belts. First water right to a private brook giving plenty and pure water. Land about 500x300. Main buildings, four-story, 300x90, all brick, two-foot walls, and other smaller buildings. All about two hours from New York. Spur track into mill yard. Plenty of help—town close to fifty thousand. Immediate possession. Apply

**RAWITSER, 285 W. Broadway, New York**

## Bargains in Machinery and Supplies.

### STEAM HAMMERS

Single Frame Steam Forging Hammers of all sizes in stock for immediate shipment. Get our prices before buying. They will interest you.

**Erie Foundry Company** ERIE, PA.

### Foundry Equipment FOR SALE

Including Iron and Wood Flasks  
Four Rumbling Mills  
One No. 5½ Roots Blower with about 100 ft Galvanized Pipe, Crane, etc.

All in Good Condition.

**D. A. TOMPKINS COMPANY** Charlotte, N. C.

### A. C. UNITS 3 PHASE 60 CYCLES

K.W.	Make.	Volts.	Rev.	Engine.
125	Westge.	240	3600	Parsons Tur. (Steam).
200	G. E.	2200	200	18 & 30x19 Har. Cor.
2	300	G. E.	550-440	225 Harrisonburg 4 Valve.
400	G. E.	2300	120	McI. & S. Vert. C. C.
2	400	G. E.	2300	150 18 & 30x30 Buckeye.
3	500	Westge.	2300-440	3600 H.P. Westge. St. Turb.
600	Westge.	440	90	32x48 Allis Corliss
1000	Westge.	Any	1800	Low-pressure Turb.
1000	Ge. El.	Any	1800	Mix-pressure Turb.
2	1000	Westge.	Any	1800 H.P. West. St. Turb.

**WILSON MACHINERY CO.**  
419 Pine St.—OTHER SIZES—St. Louis.

### Motors For Sale

1	G. E.	15 H. P.	500-volt	700 R. P. M.	Motor,	\$75.00.
1	G. E.	30 H. P.	500-volt	625 R. P. M.	Motor,	\$150.00.
1	W. H.	20 H. P.	500-volt	600 R. P. M.	Motor,	\$100.00.
2	W. H.	11 H. P.	500-volt	650 R. P. M.	Motors,	\$50.00 each.

These Motors are in first-class running condition and ready for immediate delivery.

**PIEDMONT IRON & METAL CO.**  
BALTIMORE, MD.

### FOR SALE

1	40 H. P.	Westinghouse Engine,	25 K. W.,	110-volt dynamo.
2	New 54"	Vertical Boring Mills.		
3	1"	Bolt Cutters.		

**Detrick & Harvey Machine Company**  
BALTIMORE, MD

### FOR SALE CHEAP

One Land Pile Driver, 3000-lb. hammer, 50 ways and steel rollers.

Four Steel-Guyed Stacks, 6"x10".

One Steel Self-Supporting Stack, 10"x15".

**CENTRAL TRANSFER CO.**

415 N. Front St BALTIMORE, MD.

### STEAM ENGINE FOR SALE

One 50 H. P. Slide Valve H. S. & G. Horizontal Steam Engine, with all attachments; excellent condition.

**THE LYNN-SUPERIOR COMPANY**  
CINCINNATI, OHIO

### Special Bargains in Sanders

1	42"	3-drum	Perfection Sander,	thoroughly overhauled.....	\$350.00
1	48"	3-drum	Thomas Sander.....		\$400.00
1	48"	4-drum	H. B. Smith Sander.....		\$500.00
1	48"	3-drum	Royal Invincible Sander,	used only 3 weeks.....	\$550.00
1	54"	3-drum	J. A. Fay & Co., fine order.....		\$550.00
1	60"	3-drum	Columbia Sander in A-1	condition.....	\$600.00

### JOINTERS

1	29"	Carrey Hand Jointer.....	\$100.00
1	30"	Buss Extra Heavy Hand Jointer.....	\$125.00

Woodworking machinery of all kinds. Write, stating your requirements.

**CLEVELAND BELTING & MACH'RY CO.**  
1922 Scranton Road Cleveland, O.

### Machinery Bargains

14-ton 9"x14" Porter Locomotive, 36" gauge.  
4-yd. K. & J. Dump Cars, 36" gauge.  
¾-yd. All-Steel Dump Cars, 20" gauge.  
200 tons 60 and 70-lb. Relaying Rails.  
120 tons 12 and 16-lb. Relaying Rails.  
175 tons 12" 35 and 40-lb. Sheet Piling.  
50 24" 20 and 100-lb. I Beams, 30 to 29.  
300 15" 42 and 60-lb. I Beams, 15 to 18.  
200 12" 40-lb. I Beams, 15 to 18.  
40 100x15 All-Steel Frame Buildings complete, ready to erect.

Write for Free Complete List No. XB-213.

**Harris Brothers Company, Owners**

**CHICAGO HOUSE WRECKING CO.**  
35th and Iron Sts. CHICAGO, ILL.

### BOILERS

2	60x16-135	lbs. pressure.
2	72x20-140	lbs. pressure.
2	200 H.P.	Erie City, 150 lbs. pressure.
4	250 H.P.	Heine, 160 lbs. pressure.
2	300 H.P.	Edgemoor, 175 lbs. pressure.
2	350 H.P.	Heine, 150 lbs. pressure.
2	520 H.P.	B. & W., 150 lbs. pressure.
4	600 H.P.	B. & W., 200 lbs. pressure.

**WILSON MACHINERY CO.**  
419 Pine St.—OTHER SIZES—St. Louis.

### Used Presses

- 1 No. 4 Geared "Bliss."
- 1 No. 4 Flywheel "Bliss."
- 1 No. 20 Inclined "Bliss."
- 1 No. 19 Inclined "Bliss."
- 1 No. 2 "Bliss."
- 1 No. 1 "Phila. Machine Co."
- 1 No. 3 "Henderson."

Also a number of foot presses.

### SPECIAL BARGAIN.

1 10-12" "Dill" Slotter; complete; used but a few months.  
A large stock of other miscellaneous machinery. Send for complete list.

**L. F. SEYFERT'S SONS, Inc.**

437 N. Third St. Philadelphia

### Direct Current Generator

#### FOR SALE

150 K. W. 6-pole 250-volt 550 R. P. M. 3-bearing Fort Wayne Belt-Driven Direct-Current Generator. Immediate delivery.

**National Machinery & Wrecking Co.**

1916 Scranton Road Electrical Dept. Cleveland, Ohio

### GENERATING SET

#### FOR SALE

A 62½ K. W. Allis-Chalmers Generator, 240 volts, 250 amperes, direct connected with an Erie City slide-valve 100 H. P. engine, in first-class order and condition. For further information address

**THE ROYAL LAUNDRY, Richmond Va.**

### WATCHMAN CLOCK

#### FOR SALE CHEAP

Newman Watchman Clock complete, nine stations; approved by underwriters. Practically new. Will sell cheap to quick buyer.

**F. T. CUMMINGS, Bristol, Va.**

### AT A BARGAIN

10,000 feet 22" Riveted Steel Dredge Pipe (first-class condition, practically good as new) at 50c. per foot f. o. b. cars, for immediate shipment.

2 1,000,000-gallon D'Auria Pumps (can now be seen working).

1 Ingersoll-Sargeant Straight Line Air Compressor, 22x22½x24.

1 Ingersoll-Sargeant Straight Line Air Compressor, 16x16½x18.

2 Ingersoll-Sargeant Straight Line Air Compressors, 12x16½x14.

PLANTS BOUGHT AND DISMANTLED.

**Boston Iron & Metal Company**

Baltimore, Md.

### FOR SALE Cheap Before Removal

Train, two 21" Roughing Mills.  
Train, four 12" Guide Mills.  
Train, three 10" Guide Mills.  
600 H. P. Buckeye Twin Steam Engine.  
650 Wetherill Corliss Rolling Mill Engine.  
Two-ton Sprague Electric Hoists, D. C.  
400 H. P. Motor A. C. Switchboard.  
50 H. P. A. C. Motors.  
No. 5½ Root Blowers, with valves.  
4" and 6" Air Hoists.  
Covington Vertical Shear, cap. 4" sq. cold.  
Jib Cranes, Scales, etc.  
We purchase the entire equipment of industrial plants.  
What have you for sale?

**W. L. BIRTWELL**

Crozer Building, Philadelphia, Pa.

### Engine, Generator and Boiler FOR SALE

150 H. P. Ideal Steam Engine, center crank.  
50 K. W. 250 volt D. C. Generator.  
90 H. P. Horizontal Tubular Boiler.

**H. H. CATCHING**

Washington, Ind.

### Arc Lamps For Sale

110 Westinghouse Street Series Enclosed Arc Lamps for 6.6 amperes, constant current circuit, all in good condition. Inquire of

**The Carlisle Light, Heat & Power Co.**  
CARLISLE, PA.

### Tampa Machinery Exchange

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Buy, Sell and Exchange Machinery of All Kinds

WRITE US YOUR WANTS

### FOR SALE AT A BARGAIN

Vertical "Nash" 82 H. P. 3-cyl. Producer Gas Engine, 100 H. P. Traverse City Producer, Scrubber, Air Pump, Air Tanks, very complete outfit in fine shape, running every day. Could in trade use delivery car, roadster or passenger automobile. No junk wanted. What have you?

**WOLTERS BROS.**

"Crescent Mills" Fremont, Mich.



## REFRIGERATING MACHINE

3-Ton Racine Vertical, two cylinder, belt type Refrigerating Machine, complete with condenser, ammonia receiver, oil trap, gauges, cooling-room coils and hold-over tank; little used. Bargain for quick sale; less than one-half new cost.

The Assets Purchasing Company  
Wheeling, W. Va.

## FOR SALE

### Complete Steam Electric Power Plant

Big Bargain Before Removing  
to Our Warehouse

- 2 Hx18 Skinner Center Crank Self-Oiling Automatic Engines.
- 2 Jeffrey 150 K. W. 250-275-volt Direct Current Belt-Driven Generators. Speed 500 R. P. M.
- 1 5-Panel Switchboard and Instruments.
- 1 18" Double Leather Belts.
- 1 150 H. P. each 72"x18" BUTT-STRAPPED TRIPLE-RIVETED Horizontal Tubular Boilers with Full Flush Fronts, Grate Bars and Fittings.
- 1 600 H. P. Stillwell Open Type Feed Water Heater.
- 2 Suitable Size Single Steam Pumps.

This plant is complete in detail, including all necessary fittings and attachments, and is in excellent condition throughout. Will sell separately at very low prices, but offer an exceptional bargain on the plant complete.

Pfannmueller Engineering Co.

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CHICAGO

### Air Compressor, Tank, Beam Shear, Motor, Etc.

#### FOR SALE

- One Blaisdell Air Compressor, Class AA, size 10x10, speed 150, direct connected with 2 H. P. Westinghouse Motor, 25 cycles, 220 volts, 3-phase.
- One Automatic Cut-off Controller.
- One Air Tank.
- One "Johns" Patent Beam Shear, capacity 20" 6-lb. beams, with knives and blocks.
- One 10 H. P. Westinghouse Motor, 220 D. C.

Chesapeake Iron Works  
BALTIMORE, MD.

### MACHINERY and SUPPLIES

#### FOR SALE

All sizes new and second-hand Pulleys, Belting, Shafting, Hangers, Couplings, Pillow Blocks, Collars, etc.

#### PASSMAN BROTHERS

28 & 30 So. Green St., Chicago, Ill.

## BOILERS FOR SALE

- 1-300 H. P. Vogt Water Tube Boiler, 150 pounds, with Green Stoker and 60"x100" steel stack, used only 18 months.
- 1-100 H. P. Vogt Hand-fired Water Tube Boiler, 150 pounds, used one year.

HENRY VOGT MACHINE CO.  
LOUISVILLE, KY.

## GENERATOR

#### CHEAP

1-General Electric Turbine, direct current, 35 K. W., 250 volts, with switchboard panel 20" wide, double pole switch and circuit breaker, ammeter and potential plug receptacle, complete. Condition good as new.

Good reason for selling.

ELITE LAUNDRY CO.

Eutaw and Biddle Sts. Baltimore, Md.

In replacing our manufacturing equipment we find the following first-class

## Used Machine Tools

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#### ENGINE LATHES

- No. 162-16"x8" Reed.
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- No. 142-18"x10" Lodge & Shipley Motor-Driven Patent Head.
- No. 136-20"x12" Lodge & Shipley Patent Head.
- No. 7385-24"x12" Lodge & Shipley Patent Head.
- No. 49 D-24"x12" Sellers.
- No. F-15"x16" Blaisdell 4-step Cone.
- No. G-Two 16"x8" Le Blond 5-step Cone.

#### SPECIAL LATHES

- No. 76-No. 3 Lodge & Shipley Rapid Reduction.
- No. 5302-30"x16" Lodge & Shipley High Speed.
- No. 7694-24"x8" Lodge & Shipley Triple Geared Friction Head.
- No. 1308-14"x6" Towley 4-step Cone Speed.
- No. 199-14"x6" Flatner Tool Room.

#### TURRET LATHES

- No. 28-16"x6" Lodge & Shipley 3-step Cone.
- No. 111-22"x7" Lodge & Shipley 3-step Cone, Friction Head.
- No. 122-Two 24"x10" Lodge & Shipley 3-step Cone, Friction Head.

#### PLANERS AND SHAPERS

- No. A-30"x30"x10" Detrick & Harvey Open Side.
- No. B-36"x36"x12" Niles.
- No. 248-30"x30"x10" Gray.
- No. 219-24"x24"x12" Ohio.
- No. 238-16" Queen City Back Geared.
- No. D 223-26" Smith & Mills Shifting Belt.

#### HORIZONTAL MILLERS

- No. 313-Three Cincinnati No. 4 Plain.
- No. 328-Cincinnati No. 3 Plain.
- No. 323-LeBlond No. 3 Plain.
- No. 342-LeBlond No. 2 1/2 Plain.
- No. 346-LeBlond No. 4 Heavy Duty.

#### MISCELLANEOUS

- No. 247-Burke Hand Miller.
- No. 432-Gardam Multiple (four-spindle) Drill.
- No. 1690-2"x8" Rockford Straightening Machine.
- No. 1336-Sturtevant Blower. Diameter of outlet, 3 1/2".
- No. 2531-Sturtevant Blower. Diameter of outlet, 2 1/2".
- No. 1326-Two 2" Cleveland Automatic Turret Machines.
- No. 1340-1" Cleveland Automatic Turret Machine.
- No. 1329-2 1/2" Hartford Automatic Screw Machine.
- No. 683-Mueller Grindstone Frame for 4"x27" stone.
- No. C-Diamond Emery Wheel Stand (for two wheels).
- No. D-West Haven Hack Saw (for 6" stock).
- No. E-Pawling & Harnischfeger Horizontal Boring Machine with Bausch 6-spindle attachment.
- No. 1363-12"x40" Mumford Molding Machine.
- No. 1379-Universal Swivel Table for Radial Drill.
- No. D 1356-Diamond Combination Grinding and Polishing Stand.
- No. 1401-Gleason Mitre Gear Tester.
- No. 661-Globe Tool Sharpener for 1 1/2"x6" wheels.
- No. D 1355-Centering Machine, chuck capacity 2 1/2".
- No. 666-Rivett Grinder equipped with Head Internal Head.
- No. 703-No. 1 LeBlond Universal Cutter and Tool Grinder.

The Lodge & Shipley Machine Tool Co.  
CINCINNATI, OHIO

### Motors, Dynamos, Switchboards, Etc.

- 400 H. P. G. E. Induction Motor, 720 R. P. M., 2200 volts, complete.....\$3000.00
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- 50 H. P. Allis-Chalmers, 3-phase, new, 850 R. P. M., complete.....300.00
- 50 H. P. G. E., 2-phase, 850 R. P. M., complete.....245.00
- 35 H. P. G. E., 3-phase, 850 R. P. M., complete.....215.00
- 35 H. P. Westinghouse 2-phase, 1140 R. P. M., complete.....200.00
- 25 K. W. C. & C. Watertown engine, 115 volts.....400.00
- 30 K. W. Eddy to New York safety engine, 120 volts.....500.00
- Large stock of smaller motors and dynamos, both A. C. and D. C. Let us have your requirements.

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#### FOR SALE—New Lathes at Bargain Prices

Geared head 20"x10", 18"x10", 16"x8", 14"x8", 12"x8". Cone head 20"x10", 18"x8", 16"x8". All the above with semi-quick-change gears. Second-hand lathes with geared heads, quick-change gears, 16"x8", 16"x8", 16"x8". Second-hand lathes, cone head, plain gears, 20"x18", 27"x16", 30"x10", 18"x8", 18"x8", 18"x8".

CHAS. T. LEHMAN Birmingham, Ala.

1 100 K. W. 125-250-volt Sprague Generator, D. C. to 10 and 20x16 Ball & Wood Tandem Semi-Corliss Four-valve Engine. Boilers, Gas Engines, Motors. Tell us what you want.

EDGAR M. MOORE & CO.

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## CORLISS ENGINES

- 10x30 Allis. 2-14x36 St. Louis & Murray.
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- 16x36 St. Louis—16x36 Murray.
- 2 22x42 Hamilton. 2-28x48 Cooper.
- 30x60 H. & B. 32x54 Bass.
- 32 & 62x60 Allis Hor. Cross. C. H. D.
- 26 & 54x60 Allis Hor. Tand. C. H. D.

WILSON MACHINERY CO.

419 Pine St.—OTHER SIZES—St. Louis.

## FIRST-CLASS

## Used Machinery

LATHES  
DRILLS  
MILLERS  
PLANERS  
SHAPERS  
SAWS, Etc.

Prentiss Tool & Supply Co.  
NEW YORK

### STEAM ENGINE AND MOTOR DRIVEN PUMP

25 H. P. 9x12 Nagle Center-Crank Plain Slide-Valve Engine in excellent condition at low price.

Motor-Driven Centrifugal Pump, 250 gals. per min. against a 225 ft. head, practically new, at half price. Will equip with any style motor desired.

Electrical apparatus of all kinds at lowest prices.

V. M. NUSSBAUM & CO., Fort Wayne, Ind.

### OIL ENGINES

- 50 H. P. De La Vergne twin-cyl. Oil Engine, \$1500.
- 50 H. P. De La Vergne twin-cyl. Oil Engine, \$1200.
- 32 H. P. De La Vergne Oil Engine, \$700.
- 30 H. P. Diesel 2-cyl. Oil Engine, \$600.
- 20 H. P. De La Vergne Oil Engine, \$450.
- 15 H. P. De La Vergne Oil Engine, \$350.

DUZETS & SONS  
Hudson Terminal Bldg. NEW YORK

## Boilers For Sale

5-550 H. P. Altman Taylor B. & W. type, 150 lbs. pressure, complete, with steel supporting structure arranged to set two in battery, one battery equipped with Taylor stokers.

HENRY R. KENT & CO.

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## THERE IS A REASON

why our properly rebuilt Machinery gives satisfaction

#### ASK US

ENGINES, CORLISS: 15x42 Hamilton; 16x42 Brown; 16x42 Hamilton; 14x42 Hamilton; 14x36 Nagle; 12x30 Hamilton; 10x24 Hamilton.

ENGINES, AUTOMATIC: 21x22 Ridgway; 19x18 Ball; 14x14 Erie; 10x16x12 Buffalo Compound; 13x12 Ball; 12x14 Green; 12 1/2x12 Armington & Sims; 10x18 Buckeye; 8x14 Noyes; 8x10 McEwen; 6x6 Harrisburg.

ENGINES, THROTTLING: 20x24 H. S. & G.; 16x18 Ames; 14x14 Lewis, vertical; 13x16 Erie; 12x14 Gibbs; 11x16 H. S. & G.; 10x16 Lane & Bodley; 10x12 new Handle; 8x12 Erie; 8x10 Brownell; 7x10 Union; 6x8 Industrial, vertical; 6x6 Industrial; 3x4 Kriebel.

BOILERS, STATIONARY: HIGH PRESSURE: 1 200 H. P. for 125 lbs.; 2 150 H. P. for 125 lbs.; 1 125 H. P. for 125 lbs.; 3 100 H. P. for 110 lbs.

BOILERS, STANDARD: From 150 to 20 H. P. for 100 lbs.

BOILERS, LOCOMOTIVE FIRE BOX: From 150 to 10 H. P., high and low pressure.

BOILERS, VERTICAL: 60 to 4 H. P., plain and submerged tubular.

GENERATORS AND MOTORS: Belted and direct connected.

MISCELLANEOUS: Heaters, open and closed; pumps, all sizes; sawmills; corn mills and feed grinders; exhaust fans and blowers; woodworking machinery; iron-working tools; leather, rubber and canvas stitched belts; pipe, valves and engine and boiler fittings.

Sole manufacturers of the "Leader" Injector and Ejector. Ask for circular.

THE RANDLE MACHINERY CO.

1734 Powers St., Cincinnati, O.

## One 75-Horse-Power DIESEL OIL ENGINE

Three-Cylinder Belted Type; installed larger power; seen running. Bargain. Address

Box 545, Manufacturers Record

### Rebuilt Leather Belting

Half price new equal quality, less stretch, equal service. Less price cheap now, better service. All sizes, guaranteed. New leather, rubber, canvas, factory prices. We buy good leather belting. Salesmen and selling agents wanted.

FREEDRICH BELTING CO., Manufacturer, St. Louis, Mo. Please mention Manufacturers Record.

## HYDRAULIC PRESSES AT A BARGAIN

We have ten Hydraulic Presses, Boomer & Boschert make, designed for 350 tons pressure, extra heavy downward pressure type. These presses have steel beams, steel cylinders and iron platen. Inside diameter of cylinders 20". Diameter of steel rods 4 1/2". Width between rods 72". Movement of ram about 48". Platen 62" square.

These presses were formerly used in fertilizer work. We have sold quite a few of them to be used in other classes of work requiring hydraulic presses. We are selling them cheap in order to move them quickly. If interested, write us for cuts and full description.

### MACHINE TOOLS

- 1 1/4" Cleveland Standard Automatic Machine.
- 48"x48"x15" Sellers Planer, 2 heads.
- 60" Sellers Vertical Boring Mill, 2 heads.
- 48" Sellers Vertical Boring Mill, 2 heads.
- No. 2 Brown & Sharpe Screw Machine.
- 3500-lb. Bement-Miles Double-Frame Steam Hammer.
- 350-lb. Bement-Miles Single-Frame Steam Hammer.
- 36"x12" Hess Heavy-Duty Slab Milling Machine.
- 12" Niles Slotter.
- 26"x12" Field Lathe, triple geared.
- 6" Cox Pipe Machine.
- 14"x8" Hendey Lathe.
- 10" Bignall & Keeler Pipe Machine.
- 30" Throat Double-End Punch and Shear, weight 3500 lbs.
- D. A. G. No. 5 Ferracute Press.
- 30 new Lathes 14 to 20" in stock; immediate delivery.
- 50"x16" Pittsburgh Machine Tool Co. Lathe, 6" raising blocks.
- 32"x14" Hamilton Lathe.
- No. 4 Williams & White Bulldozer.
- No. 14 1/2 Williams & White Double-End Punch and Shear.
- 16" Back-Geared American Shaper.
- 52" Bridgeport Vertical Boring Mill.

### POWER EQUIPMENT

#### Boilers

- 2 350 H. P. Sterling Water Tube, 150 lbs. steam working pressure.
- 3 250 H. P. Franklin Water Tube, 150 lbs. steam working pressure.
- 1 150 H. P. Babcock & Wilcox Water Tube, 150 lbs. steam working pressure.
- 6 150 H. P. 72"x18" Horizontal Tubular, 125 lbs. steam working pressure.

### CORLISS ENGINES

- 24"x42" Allis, left hand.
- 18"x42" Watts-Campbell, right hand.

- 16"x36" Allis, left hand.
- 2 14"x36" Scottsdale, right and left hand.
- 14"x36" Lane & Bodley, left hand.
- 12"x36" Allis, left hand.

### FIRE PUMPS

- 2 500-gal. 14"x7 1/4"x12" Underwriter's Fire Pumps.

### AIR COMPRESSORS

- 1 15" x 20 1/4" — 13 1/4" x 24" Ingersoll-Sargeant Class A Straight Line, two-stage. Capacity 940 cu. ft.
- 1 22"x22 1/2"x24" Ingersoll-Sargeant Class A Straight Line. Capacity 973 cu. ft.
- 1 12"x14 1/2"x14" Ingersoll-Sargeant Class A Straight Line. Capacity 395 cu. ft.
- 1 12"x15"x18" Ingersoll-Sargeant Class C Straight Line. Capacity 275 cu. ft.
- 1 10"x10"x10" Ingersoll-Sargeant Duplex. Capacity 275 cu. ft.

### ELECTRICAL EQUIPMENT

#### DIRECT CONNECTED UNITS.

- 150 K. W. 250-volt D. C. Crocker-Wheeler, with Wright Horizontal Tandem Compound 14 1/2"x24"x16" Engine.
- 105 K. W. 220-volt 3-phase 60-cycle A. C. Westinghouse Alternator, with 15"x16" Buckeye Horizontal Automatic Engine.
- 50 K. W. 125-volt D. C. Westinghouse, with Westinghouse Vertical Compound Automatic Engine 10"x18"x10".
- Two 17 K. W. 125-volt D. C. Westinghouse Generators, direct connected to 7 1/2"x21" Westinghouse Standard Vertical Engines.

### MOTORS and GENERATORS

Motors, direct and alternating current, all sizes from 1 to 100 H. P., in stock for immediate delivery.

Send for our list.

Generators, large stock from 1 K. W. to 75 K. W., 110 and 220-volt, direct and alternating current.

SPECIAL: 2 500 K. W. 550-volt 3-phase 60-cycle General Electric Alternators, 350 R. P. M.

FRANK TOOMEY, Incorporated

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PHILADELPHIA, PA.

# Railroad and Contractors' Equipment and Supplies.

**Georgia Car & Locomotive Company**  
ATLANTA, GA.  
**LOCOMOTIVES**  
FREIGHT CARS PASSENGER COACHES  
S. H. Std. Car Trucks for Logging  
LARGEST STOCK REBUILT EQUIPMENT IN U. S.

**Passenger Coaches**  
*Released by Pennsylvania R. R.*  
**HENRY LEVIS & CO.**  
26 South 15th Street PHILADELPHIA

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1500 tons 30 to 45 lb., with bars.  
2500 tons 52 to 70 lb., with bars.  
3500 tons 70 to 100 lb., with bars.  
Any delivery. Inquire for prices.  
We are always in the market for old rail-  
way material and relaying rails.  
**HIRSCH ROLLING MILL CO.**  
Office and Rolling Mills, St. Louis, Mo.

## RELAYING RAILS FOR SALE

500 Tons 80-lb. Rails.  
500 Tons 90-lb. Rails.  
Several Locomotives and Cars,  
**CHAS. HYDE**  
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**LOCOMOTIVES**  
36" gauge 1-7x10 Byers geared; 2-9x14  
Porters; 2-10x16 Vulcans; Std. gauge 6-  
wheel switcher, 50 tons, separate tender; 4  
10x16 Porters; 42" and 48" gauge Climax,  
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**STEAM SHOVELS**  
2 No. 0 Thews 3/4-yard traction; 2 No. 14B  
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2 1/2-yard; Marion Models 20, 28 and 31; Bucy-  
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**CARS**  
2, 4, 6, 8, 12-yard 2-way dump; 5-60M  
Center dumps.

**HOISTING ENGINES**  
2-drum 3-6 1/2x3 Americans with boilers;  
7x10 Mundy and Florys with and without  
boilers; some have Duke swingers.  
3-drum 7 1/2x10 Mundy, 6 1/2x10  
Stroudsburg with swingers and  
boilers, 10x12 National with boiler.

**BRIDGE ERECTORS HOIST**  
10x14 Lidgerwood with boiler; 6  
spools.  
Ask for our complete list.

**THAW & WILLIAMS** BELL BLOCK  
SIXTH & VINE ST.  
CINCINNATI, O.

**Locomotives**  
**Four wheel type**  
40 tons; 17"x24"; 160 lbs. pressure

Overhauled **E. H. WILSON & COMPANY**  
Modern ARCADE BUILDING  
PHILADELPHIA

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No. 1 "Thew" Traction Shovel.  
10"x12" D. C. D. D. "Lidgerwood" Hoisting  
Engine and Boiler. Many other smaller  
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2 1/2-yd. "Chain Belt" Mixers on trucks, with  
Boiler and Engine. They have side  
loaders.  
Many other makes and sizes.  
3 "Ingersoll-Rand" Sheet Piling Hammers.  
2 Sectional Steel Guy Derricks, 75' mast, 65'  
boom.  
Orange Peel and Clam Shell Buckets.  
Boilers and Engines. Every size and for  
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N. W. Corner Third and Arch Streets  
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## CONCRETE MIXERS

1 No. 14 Smith Mixer on steel skids with  
steam engine, power tilt, batch hopper;  
capacity, 46 cu. ft. dry.  
1 No. 1 Smith Mixer on skids with steam en-  
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cu. ft. dry.  
1 12-ft. Koehring Mixer with engine and boiler  
on steel trucks, with power loader and  
water tank.

**GEORGE B. CURD**  
Merchants Bldg. Cincinnati, Ohio

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### AND ACCESSORIES

**NATIONAL STEEL RAIL CO.**  
I. H. COHN, Pres. and Genl. Mgr.  
1030-32 Pierce Bldg. ST. LOUIS, MO.

**The West Va. Rail Co.**  
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Manufacturers Light Steel Rails  
12, 16, 20, 25, 30, 35, 40 lbs. per yd.  
We are also dealers in Relaying Rails.  
All Sizes.

## LOCOMOTIVE FOR SALE

Porter Saddle Tank Locomotive, 3' 3"  
gauge. Weight 7 to 8 tons. Cylinders 7x12.  
Just repaired and completely overhauled.  
All worn parts replaced. Photograph, price  
and any other information on application.

**THE BILLMEYER LUMBER COMPANY**  
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## RELAYING RAILS

500 tons.....60 lbs.  
2200 tons.....74 lbs.  
With Angle Bars. Small Lots of Other Weights  
**E. C. SHERWOOD**  
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## Plant and Equipment FOR SALE

Including locomotives, gondolas,  
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drills, buckets, pumps, engines,  
elevators and conveyors.

Ask for new list with revised  
prices.

**ALABAMA POWER COMPANY**  
BIRMINGHAM ALABAMA

## Second-Hand Equipment WANTED AT ONCE

288 pieces Steel Sheet Piling,  
30 to 35 ft. long. Lackawanna  
12 Fabricated Corners, 30 to 35 Arch Web  
ft. long. preferred.  
1 Steel Concrete Tower, 100 ft.  
No boom. Insley  
1 Holst Bucket, 30 to 36 cubic ft. preferred.  
capacity.  
1 Hopper, 36 to 54 cubic ft. ca-  
pacity.  
100 lineal feet of Concrete Chute,  
8 or 10 inch.  
1 Concrete Mixer, 1 to 1 1/2 cubic yards, with  
direct connected steam engine.  
1 Double Drum Hoisting Engine, about 40  
horse-power.  
1 8-inch Centrifugal Pump, with steam en-  
gine directly connected. Intake and dis-  
charge pipe for same.  
In reply give complete description, condi-  
tion and price f. o. b. shipping point.  
Address

Postoffice Box 1606  
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## Relaying Steel Rails

35 lb., 40-lb., 56-lb., 60-lb., 70-lb., 80-lb.,  
85-lb. and Angle Bars to lay same

Advantageously located for Southern deliv-  
ery; also other weights of **RELAYING**  
**RAILS**, in different sections of the country;  
and **NEW STEEL RAILS**, all weights.  
We handle first-class Relaying Rails and do  
not select them from scrap. Let us know  
your requirements. We buy Rails fit to re-  
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**ROBINSON & ORR**, Pittsburgh, Pa.  
Low Prices on New FROGS and SWITCHES.

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### RELAY RAILS

LOCOMOTIVES—Narrow and Stand-  
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senger Cars.

Largest Stock Locomotives  
in United States  
**Southern Iron & Equipment Co.**  
ATLANTA, GA.

## J. E. FRANKS

Room 729 Candler Bldg.,  
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RAILS, CARS, AND LOCOMOTIVES  
FROGS, SWITCHES, Etc

**RELAYING RAILS**  
20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 80, 85, 90  
and 100 lb., all with Fish Plates

**NEW RAILS**  
8, 12, 16, 20, 25, 30, 35, 40, 45 lb., at manufac-  
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**LARGE TONNAGES**—Carload and less car-  
load lots, advantageously located for South-  
ern delivery.

Splice Bars for any section rail in stock.  
Frogs, Switches, Bolts, Nuts, Spikes, and  
all Track Accessories.

New and Second-hand Pipe, all sizes, with  
good Threads and Couplings.

Rebuilt Locomotives, Cars and Equipment.  
All second-hand materials guaranteed. Sub-  
ject to inspection during loading, or will  
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Attractive Prices. Quick Shipment.  
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LOCOMOTIVES, STEAM SHOVELS and RAILS

We have at our shops in Birmingham,  
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Also, 2000 tons of Relaying Rails, all  
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**Hopper Bottom Gondolas**

First-Class Condition. Lowest Prices Ever.

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PROMPT DELIVERY.  
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With Splices and Spikes.

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All Weights.

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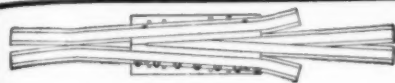
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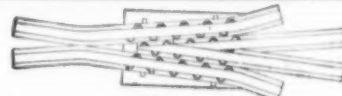
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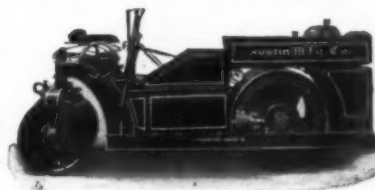
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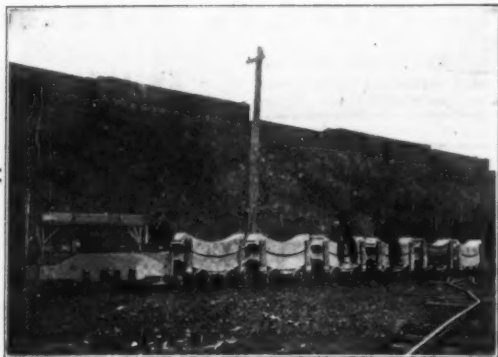
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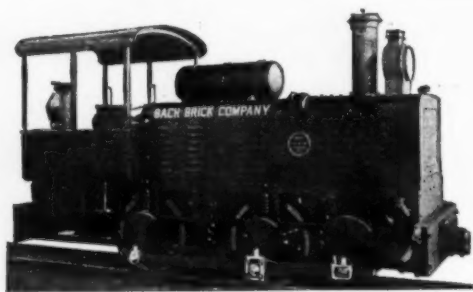
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The Georgia Coast & Piedmont R. R. has in service an eight-ton Baldwin gasoline locomotive. The following is an extract from a letter written by Mr. A. de S. Mendes, Vice-President and General Manager, under date of February 20, 1915, to a prospective purchaser of gasoline locomotives:

"This machine has been in constant service for a matter of about a year, and the item of repairs has not exceeded \$5.00 in cost.

"Likewise, our Master Mechanic, in company with myself, recently gave this machine a thorough inspection. \* \* \* We were pleasantly surprised to find that there was no perceptible wear on the gears. There has been no difficulty with the clutch, and the air brake equipment of the engine controls it perfectly for switching, which the operator often does with no assistance. \* \* \* I have no hesitation whatsoever in endorsing the efficiency of these engines."

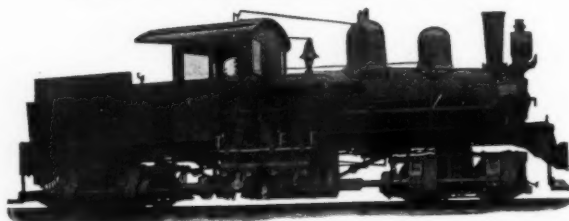
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SHAY GEARED LOCOMOTIVE

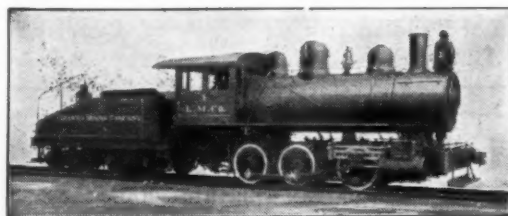
This locomotive has the advantage of three cylinders, giving an equal distribution of power, perfect balance on rail, least possible vibration. Write for catalogue "O."

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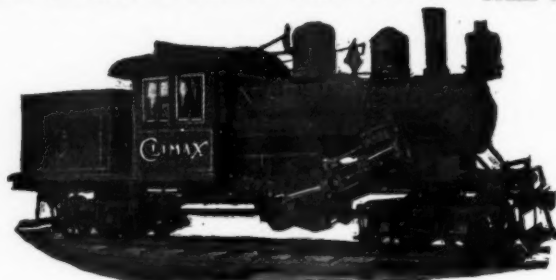


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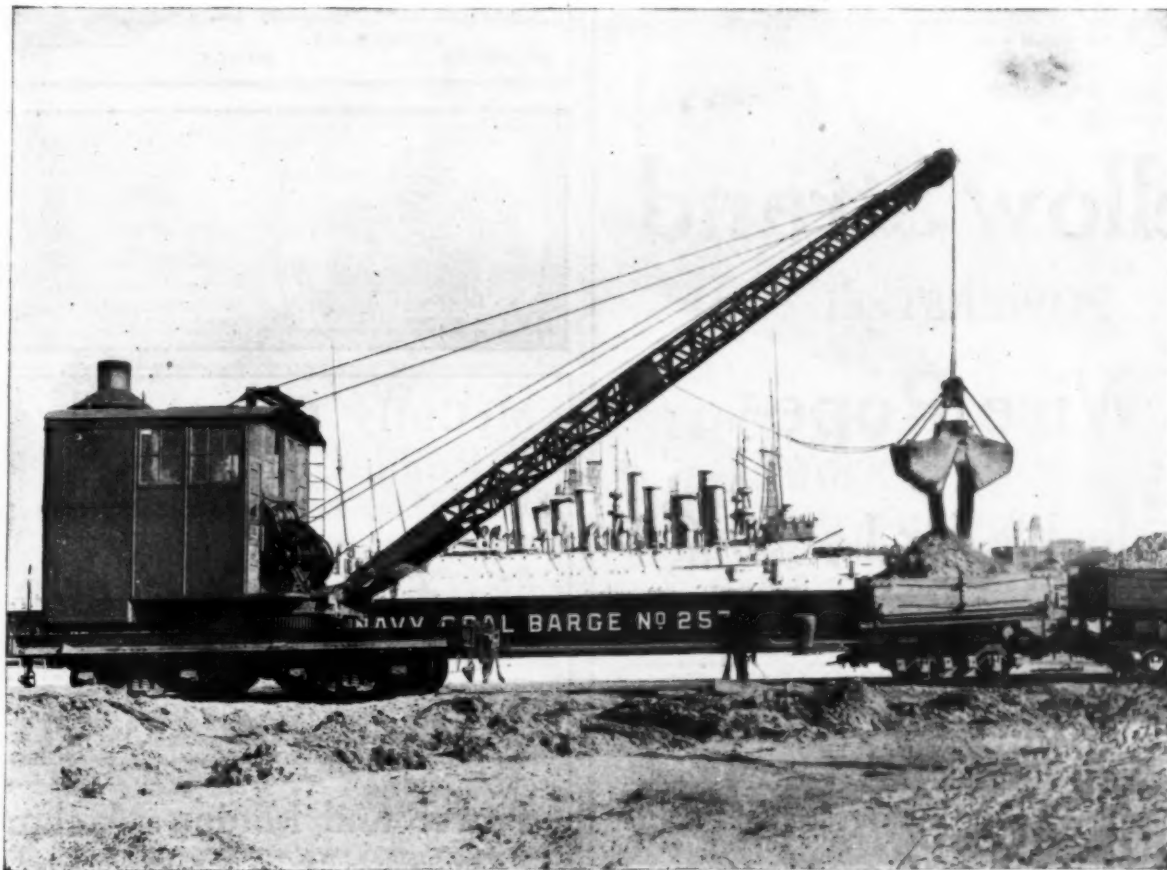
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# The Link-Belt Revolving Locomotive Crane

For Handling and Storing Coal, Stone, Gravel  
and all materials—loose or in bulk



Standard Link-Belt Locomotive Crane at the League Island Navy Yard, Philadelphia

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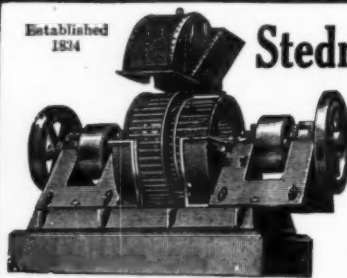
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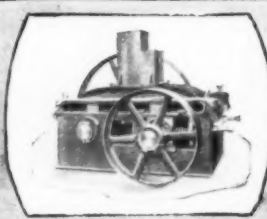
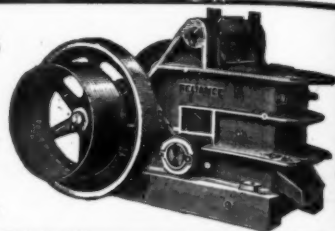
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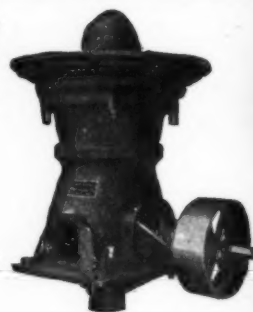
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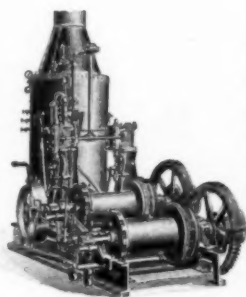
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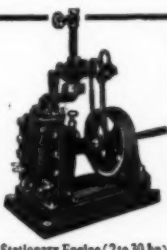
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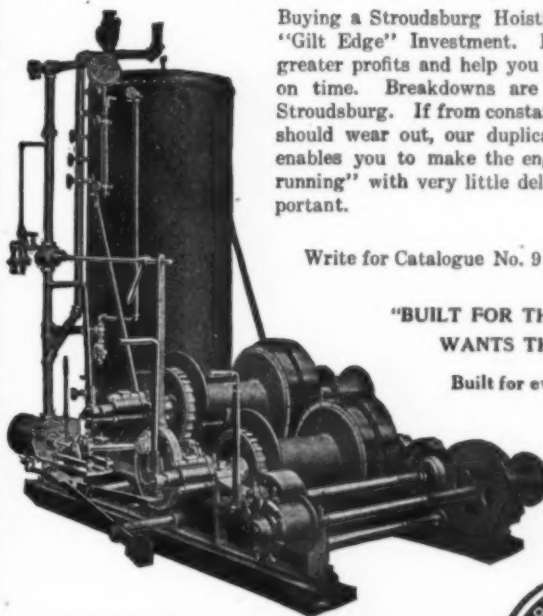
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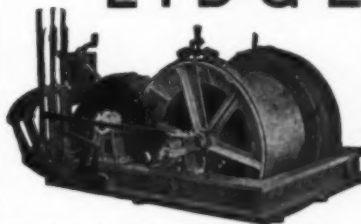
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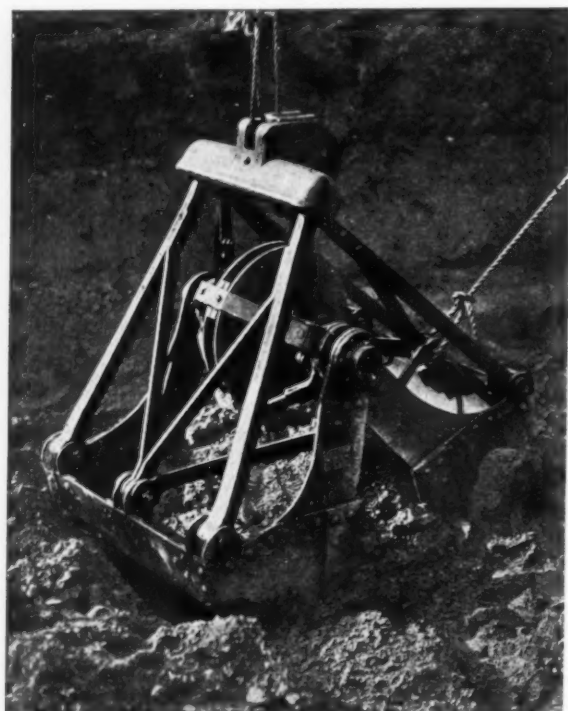
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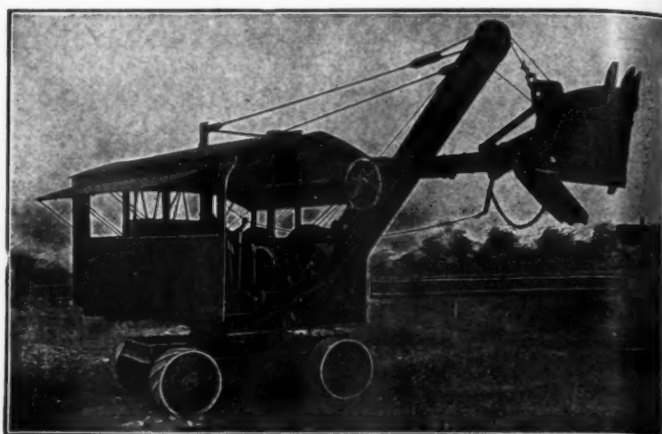
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*Builders of Digging Machinery*

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**$\frac{3}{8}$  Cu. Yd. Full Circle Revolving Gasoline Operated Shovel.**

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You can make a bigger profit in reclaiming land if you have no delays digging your machinery out of the mud.

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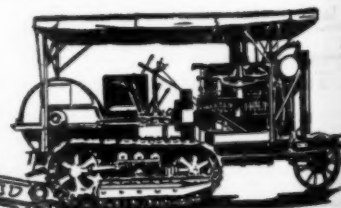
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## Five Examples of Type O Economy

A type O Thew like the one shown below averaged 314 lineal feet or 292 cubic yards per 10-hour day for 23 days on its work in a 15" cut.

Another type O averaged 298 lineal feet or 240 cubic yards per 10-hour day for 6 days in a 10" cut.

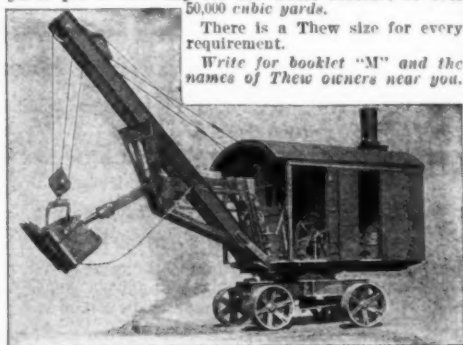
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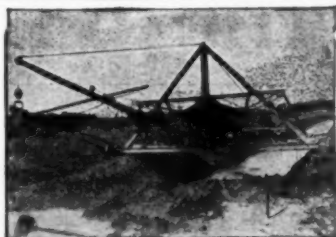
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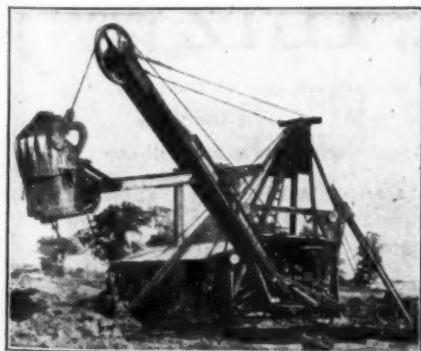
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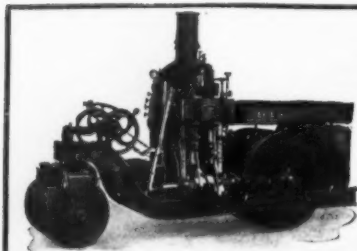
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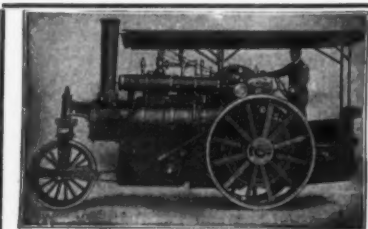
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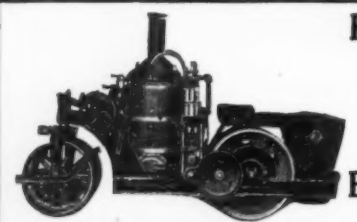
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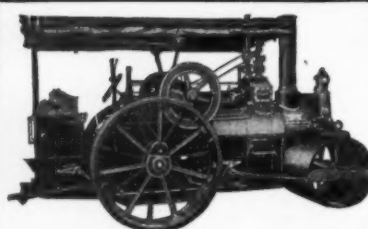
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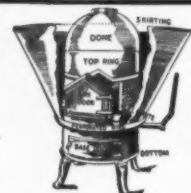
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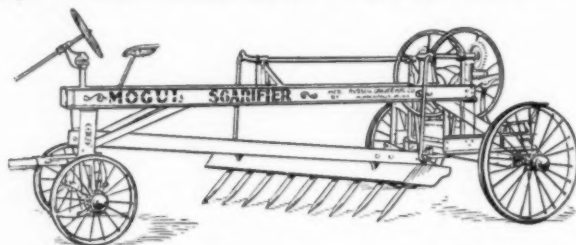
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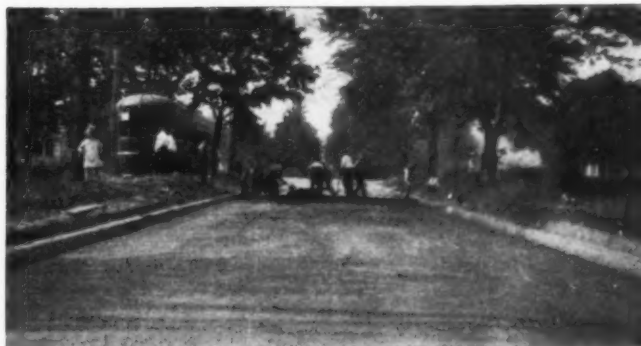
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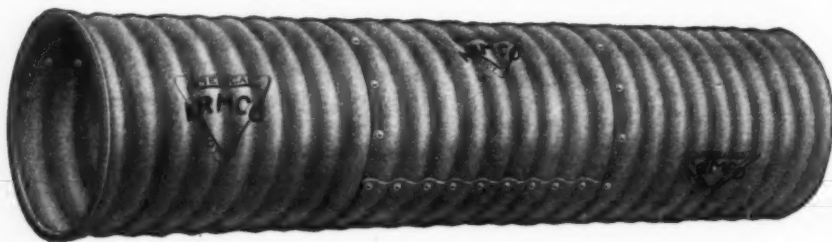
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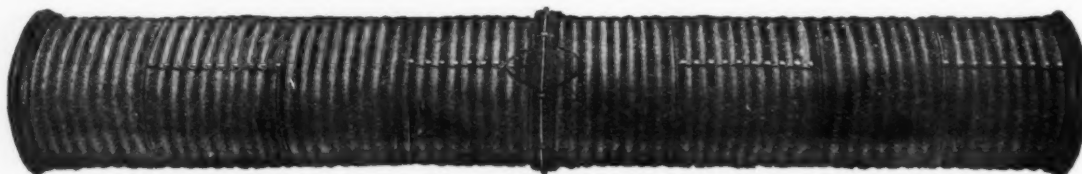
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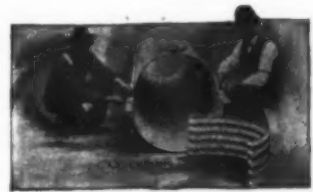
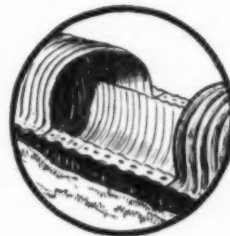
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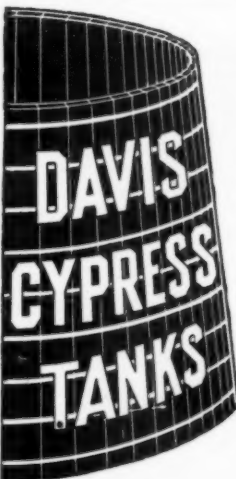
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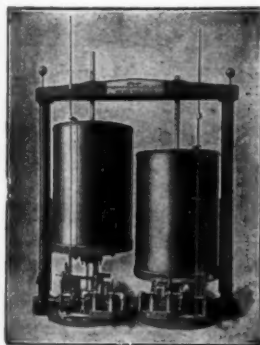
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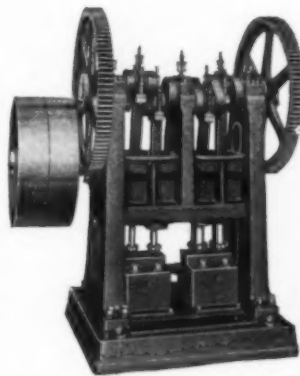
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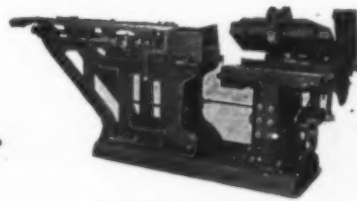
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Abundant supplies of coal, coke, iron, timber and other raw materials lie in the regions of Georgia and Alabama which are traversed by the

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Cheap electric power, numerous undeveloped water-powers, good home markets and excellent shipping facilities. Therefore, manufacturing conditions are ideal.

Many of the cities on the Central of Georgia Railway occupy advantageous positions for distributing warehouses, and a number of the larger northern and eastern manufacturers supply their southeastern trade from branch houses in these cities.

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### Investigate This Location For Your Factory

#### Cheap Electric Power

Electric Current in unlimited quantities at the low rate of 1 cent per Kilowatt hour.

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Sites adjacent to the homes of approximately 35,000 mill operatives.

#### Shipping Facilities

Ample railway facilities to all sections of the country and free sidings.

#### Free Sites

Well located sites of all sizes are offered free of cost.

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The gateway of the South and the home of the fifth district Regional Bank affords an advantageous location for factories and distributing warehouses.

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Will be glad to confer with interested parties regarding excellent location for hosiery mill. Splendid building now ready for machinery.

Healthful location, ample supply of labor, citizens of community interested in seeing development made.

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**Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina,  
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## What We Offer You

**T**HERE are millions of acres of the most productive farm, pasture and orchard lands in the South offering distinct advantages to homeseekers. Good farmers can make more money in the South from the labor and capital invested than elsewhere in America. Careful investigation will prove this and also that the most pleasant, healthful home conditions are in this section. One can find no better region for dairying, or for poultry and live stock raising. Abundant grasses and forage plants, pure water, the long grazing seasons, the low cost of production and the good markets make the South unequalled today in opportunities for these industries. Nearly all authorities who have studied the situation agree that this is so. For fruit and truck raising, for general or special farming, there are all conditions for success. Lands in good locations are to be had at lowest prices for equally productive lands anywhere.

The South not only offers the opportunity for farm homeseekers, but needs them. The Southern Railway Lines want settlers in their territory who can turn the available lands into highly productive places to furnish the foodstuffs necessary for the South itself and to take advantage of the outside markets which may be supplied. They are anxious to build up their territory as part of their efforts to make their own properties more productive.

For this reason their Industrial and Agricultural Department is maintained. Its co-operation is offered in every way possible to the homeseeker who will investigate the opportunities of the South; every assistance is extended which will enable him to find the location where are the home conditions he desires and which will give him prosperity. Immigration agents will advise with him. The information about lands, crops and the various sections and conditions along the roads, carefully collected by the companies, is at his command. Careful attention will be given to secure for him the special information desired on particular subjects or localities. Booklets and other printed matter will be sent on application.

After the homeseeker is located, trained and practical agricultural field agents, live stock, dairy and poultry agents familiar with local conditions will be at his service in solving any of the problems which his new location may bring. Market agents will help him to find the best market for his products.

What we do for the homeseeker, we also do for the manufacturer looking for a location for his plant. Industrial agents will help him solve the questions as to the proper point where raw materials may be satisfactorily assembled; where labor, power, transportation and market conditions are best; where necessary lands are properly located and to be had; where local capital, if wanted, will join in building the plant, and where all the other conditions which help to make the success of the industry and the welfare of its labor are to be found.

We offer our services in behalf of a territory reached by nearly 10,000 miles of railway, the people of that territory and a company which is earnestly at work in co-operation with every person or interest affected to build up the territory and advance the fortunes of those who are developing the lands and the many opportunities in the South.

Southern Railway  
Southern Railway in Mississippi  
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**M. V. RICHARDS**  
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# Views of Noted Experts On the Appalachian South

Many noted experts have told of the marvelous resources in soil, climate and minerals of the mountain region known as "The Land of the Sky," through the very heart of which the Clinchfield runs. Of it Judge Kelly of Pennsylvania, at that time known as "The Father of the House of Representatives," said:

"It is the most glorious country upon which my feet or eyes ever rested.

"As to the mountainous region of the South, it is richer in natural wealth and in advantages for the development of that wealth, it has a finer climate, better water and higher conditions of health than any region of which I have any knowledge, and is withal one of the most beautiful regions of the world."

General Thos. L. Rosser, for some years chief engineer of the Northern Pacific Railroad, wrote of the immediate section of Southwest Virginia through which the Clinchfield line has been built:

"It is a region without a peer in wealth of timber, coal and iron ore."

Prof. N. S. Shaler, of Harford University, in *Scribner's Magazine* for October, 1890, said of this section:

"We find a climate resembling in its range of temperatures those which characterize the most favored regions of the world, and it is there, perhaps, we may look for the preservation of our race's best characteristics."

Edward Atkinson, the noted political economist of Boston, in 1890 wrote:

"When this great section of heavily timbered mountain ranges and broad, high valleys, sometimes called "The Land of the Sky," which had been kept from view by the surrounding pall of slavery, first began to be opened, the writer ventured to describe it, with the Cumberland and Piedmont plateaus on either flank, and the high uplands of Georgia and Alabama on the South, as comprising 'an area nearly as large as France and twice the area of Great Britain,' containing a potential in agriculture equal to either, and mineral and timber equal to both combined."

Of the Ohio Valley, which through this line will pour its wealth of travel and traffic to the South, and of the Piedmont South, two regions forever linked by this road, Prof. Shaler said:

"Within a century the area occupied by these States is likely to contain a larger population than that which now exists in all English-speaking countries. Although this population is destined to be to a great extent engaged in mining and manufacturing, there is room in this country for an agricultural people exceeding in numbers the present population of the United States."

*Let us tell you of the special opportunities in the Clinchfield territory for the investor, manufacturer and farmer.*

## Carolina, Clinchfield & Ohio Rwy.

*"The Road of Opportunity"*

R. F. Brewer, Industrial Agent

JOHNSON CITY, TENN.



A Trainload of South Florida Cattle for Kansas City Packers.

## Why Florida is Adapted to Raising Livestock

W. A. McRae, Florida Commissioner of Agriculture, outlines in the following striking synopsis Florida's resources and advantages for raising livestock. Mr. McRae's observations are based upon years of knowledge and experience, and a special study of Florida's adaptability for stock raising. Read what he says:

"There are many reasons why Florida is adapted to the successful growing of livestock of all kinds, almost without limit.

"Among the principal reasons is its unlimited and unfailing supply of water, which is absolutely essential in every country to the successful production of livestock of all kinds. Where water is not running from natural sources, there is hardly a locality in the State that cannot be made to artificially produce water enough for all reasonable purposes, whether it be stock raising or other purposes.

"Another, which is equally as important, is the short feeding and sheltering period necessary in this State as compared with other States of the Union, it being necessary, and that in parts of the State only, to feed no more than three months and to shelter, possibly all told, no more than six weeks in the entire year.

"Another and as great an advantage in this State is the adaptability of the soils of Florida to the production of all kinds of forage crops and at less cost of production than elsewhere.

"Of the entire area of Florida there are only about 3,000,000 acres in farms and under farming control. There are not less than 30,000,000 acres that can be used to a greater or less extent for forage production or grazing purposes for livestock.

"This will show that Florida has within her boundaries the greatest grazing region east of the Mississippi River, and practically an unlimited capacity to produce forage crops to supply the livestock that could be grown upon it.

"The number of livestock of all kinds in the State is about 2,000,000 in round numbers, and the value of these is \$25,000,000. Instead of this small number there should be not less than 10,000,000 head of livestock growing in Florida, in which case the value, instead of being \$25,000,000, should be \$250,000,000 to \$300,000,000. This may sound large, but it is entirely practical and reasonable and can be easily attained."

*"Livestock Farming in Florida" is the title of an interesting illustrated booklet containing a fund of authentic data and information on this subject. We will gladly send it to those desiring to investigate this opportunity.*

## FLORIDA EAST COAST RAILWAY

(FLAGLER SYSTEM)

J. E. INGRAHAM, Vice-President

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# HOMESEEKERS' RATES FOR 1915

## Seaboard Air Line Railway

The Progressive Railway of the South

Announces the Establishment of Attractive Round-Trip Homeseekers' Rates to Progressive Florida.

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TO		TICKETS GOOD FOR 21 DAYS	
NORTH FLORIDA			
Live Oak.....	}	\$22.65	\$27.10
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McClenny.....			
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Tallahassee.....		24.55	25.60
		24.45	25.60
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Ocala.....	}	25.00	30.00
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Tavares.....			
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Bartow and Lake Wales.....		25.00	30.00
PEERLESS PINELLAS			
St. Petersburg, Clearwater, Tarpon Springs, Elfers via Tampa	}	25.00	30.00
THE FAMOUS MANATEE COUNTY			
Palmetto, Parrish, Terra Ceia Bradentown, Bee Ridge, Oneco Manatee, Sarasota, Venice	}	25.00	30.00
HILLSBOROUGH COUNTY			
Tampa, Plant City.....		25.00	30.00

These tickets will be on sale at Washington, D. C. and Cincinnati, Ohio, on FIRST and THIRD TUESDAYS in each month—good for 21 days. You can stop at Jacksonville, Florida's greatest city. It will repay you. Stop-overs also south of Jacksonville going and returning.

The rates and service from the Nation's Capital, WASHINGTON, offers splendid opportunity to the people from the Eastern States to make a Florida trip cheaply and comfortably.

The CINCINNATI rates offer a similar opportunity to the people of the Central States. You can find attractive openings in the progressive State of Florida. We shall be glad to answer your inquiry for complete information.

## SEABOARD AIR LINE RAILWAY

The Progressive Railway of the South

J. A. PRIDE, General Industrial Agent

NORFOLK, VIRGINIA

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Equitable Asphalt Maintenance Co., Kansas City, Mo.

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## Belt Lacing and Supplies. [See Belting.

Leather, Canvas, Rubber.]

## Bicarbonate Soda. (Sap Stain Lumber Dip.)

Church & Dwight Co., New York, N. Y.

## Billets. (Basic Open Hearth Quality.)

Gulf States Steel Co., Birmingham, Ala.

## Blackboards. (Slates.)

East Bangor Co., Slate Co., The, East Bangor, Pa.  
Johnson, E. J., New York, N. Y.

## Blocks. (Paving Crossoled.)

American Crossoled Works, New Orleans, La.

## Block Fillers

Barber Asphalt Paving Co., Philadelphia, Pa.  
Harrett Mfg. Co., Phila., Pa.  
Standard Oil Co., Newark, N. J.  
U. S. Asphalt Refining Co., New York, N. Y.

## Blowers and Exhaust Fans.

American Blower Co., Detroit, Mich.  
Buffalo Forge Co., Buffalo, N. Y.  
General Electric Co., Schenectady, N. Y.  
Green Fuel Economizer Co., Matteawan, N. Y.  
Raymond Bros. Impact Pulv. Co., Chicago, Ill.  
South Atlantic Blow Pipe & Sheet Metal Co., Savannah, Ga.  
Sturtevant Co., B. F., Hyde Park, Boston, Mass.

## Blueprinters.

Childrey Co., Richmond, Va.

## Boilers.

Babcock & Wilcox Co., New York, N. Y.  
Cameron & Barkley Co., Charleston, S. C.  
Casey-Hedger Co., Chattanooga, Tenn.  
Chattanooga Boiler & Tank Co., Chattanooga, Tenn.  
Chicago House Wrecking Co., Chicago, Ill.  
Coatesville Boiler Works, Coatesville, Pa.  
Coke Mfg. Co., R. D., Newman, Ga.  
Hartley Boiler Works, Montgomery, Ala.  
Keefer Co., E., Williamsport, Pa.  
Lookout Boiler & Mfg. Co., Chattanooga, Tenn.  
Lombard Iron Works, Augusta, Ga.  
Mecklenburg Iron Works, Charlotte, N. C.  
Murray Iron Works, Burlington, Ia.  
Phoenix Iron Works Co., Meadville, Pa.  
Schofield Iron Works, Macon, Ga.  
Southern Engine & Boiler Works, Jackson, Tenn.  
Southern Boiler & Tank Works, Memphis, Tenn.  
Valik & Murdoch Iron Works, Charleston, S. C.  
Vogt Machine Co., Henry, Louisville, Ky.  
Walsh & Weidner Boiler Co., Chattanooga, Tenn.  
Zelnicke Supply Co., Walter A., St. Louis, Mo.

## Boiler Covering.

Chesapeake Roofing & Pipe Covering Co., Inc., Baltimore, Md.

## Boiler Graphite.

Dixon Crucible Co., Joseph, Jersey City, N. J.

## Boiler Tubes. (See Tubes, Boiler.)

## Bolts, Nuts, Rivets, Studs and Washers.

Progressive Mfg. Co., Torrington, Conn.  
Republic Iron & Steel Co., Youngstown, O.  
Upon Nut Co., The, Cleveland, O.

## Bonds. (Surety, etc.)

Fidelity & Deposit Co. of Balto., Baltimore, Md.

## Bottling Outfits.

Viller Mfg. Co., Milwaukee, Wis.

## Brass Goods.

Bailey-Leiby Co., Charleston, S. C.  
Buckeye Iron & Brass Works, Dayton, O.  
Lunkenheimer Co., The, Cincinnati, Ohio  
Powell Co., Wm., Cincinnati, O.

## Brass Railing and Grilles.

Newman Mfg. Co., Cincinnati, Ohio

## Brewers' Machinery.

Viller Mfg. Co., Milwaukee, Wis.

## Brick. (Acid.)

Hood Brick Co., B. Miffin, Atlanta, Ga.

## Brick. (Building.)

Am. Enameled Brick & Tile Co., New York, N. Y.  
Brookhaven Pressed Brick & Mfg. Co., Brookhaven, Miss.

## Brick. (Enameled.)

Am. Enameled Brick & Tile Co., New York, N. Y.

## Brick. (Fire.)

Brookhaven Pressed Brick & Mfg. Co., Brookhaven, Miss.

## Brick. (Fireproofing & Brick Works, Kilian, S. O.)

Louisville Fire Brick Works, Highland Park, Ky.  
Mexico Brick & Co., P. C., Mexico, Mo.  
Pomona Terra-Cotta Co., Pomona, N. C.

## Standard Brick Co., Macon, Ga.

## Stevens' Sons Co., Macon, Ga.

## Union Mining Co., Mt. Savage, Md.

## Brick. (Paving.)

Carlyle Paving Brick Co., Portsmouth, O.  
Copeland-Ingis Shale Brick Co., Birmingham, Ala.  
Dunn Wire-Out-Lag Brick Co., Connest, Ohio  
Southern Clay Mfg. Co., Chattanooga, Tenn.  
Standard Brick Co., Macon, Ga.

## Brick and Clayworking Machinery and Supplies.

Chase Fdry. & Mfg. Co., Columbus, O.  
Fernholm Brick Machinery Co., St. Louis, Mo.  
Freese & Co., E. M., Galion, O.  
Steele & Sons, J. C., Statesville, N. C.

## Bridges. (Concrete.)

Cunningham Construction Co., Shreveport, La.  
Luten, Daniel B., Indianapolis, Ind.  
Requarth Co., C. W., Charlotte, N. C.  
Turner, O. A. F., Minneapolis, Minn.

## Bridges. (Rolling Lift.)

Scherzer Rolling Lift Bridge Co., Chicago, Ill.

## Bridges. (Steel.)

American Bridge Co. of New York, N. Y.  
Belmont Iron Works, Philadelphia, Pa.  
Case Crane & Engineering Co., Columbus, Ohio.  
Champion Bridge Co., Wilmington, Ohio.  
Chicago Bridge & Iron Works, Chicago, Ill.  
Cunningham Construction Co., Shreveport, La.  
East St. Louis Bridge Co., East St. Louis, Ill.  
Richmond Structural Steel Co., Richmond, Va.  
Scherzer Rolling Lift Bridge Co., Chicago, Ill.  
Vincennes Bridge Co., Vincennes, Ind.  
Virginia Bridge & Iron Co., Roanoke, Va.

## Bridge and Structural Iron Paints.

Chattanooga Paint Co., Chattanooga, Tenn.

## Bridge Builders. (Timber.)

Murray & Co., Inc., W. D., Norfolk, Va.

## Brimstone.

Union Sulphur Co., New York, N. Y.

## Buckets. (Olam Shell.)

Hayward Company, New York, N. Y.  
Williams Company, G. H., Cleveland, Ohio.

## Buckets. (Dredging, Excavating, Sewer, etc.)

Hayward Co., New York, N. Y.  
Mead-Morison Mfg. Co., East Boston, Mass.  
Monaghan Mch. Co., Chicago, Ill.  
Williams Co., The G. H., Cleveland, O.

## Buckets. (Grab.)

Hunt Co., Inc., C. W., West New Brighton, N. Y.

## Buckets. (Orange Peel.)

Hayward Co., The, New York, N. Y.

## Buckets. (Ore Handling.)

Caldwell & Son Co., H. W., Chicago, Ill.  
Hayward Co., New York, N. Y.  
Link-Belt Co., Philadelphia, Pa.  
Williams Co., The G. H., Cleveland, O.

## Buhr Stones.

Siarr Co., B. F., Baltimore, Md.

## Builders and Contractors.

Interstate Const. Co., Louisville, Ky.  
Stone & Webster Eng. Corp., Boston, Mass.  
Turner, O. A. F., Minneapolis, Minn.  
White Companies, J. J., New York, N. Y.

## Building Stone

Atlantic Stone Co., Atlanta, Ga.  
Bedford Steam Stone Works, Bedford, Ind.

## Building Supplies.

Chicago House Wrecking Co., Chicago, Ill.  
Southern Building Material Co., Norfolk, Va.

## Burners. (Oil.) [See Fuel Oil Equipments.]

## Bushings. (Oilless, for Loose Pulleys.)

Metaline Co., Long Island City, N. Y.

## Cables.

Broderick & Bascom Rope Co., St. Louis, Mo.  
Roebeling's Sons Co., John A., Trenton, N. J.

## Cables and Wires. (Insulated.)

American Steel & Wire Co., Chicago, Ill.

## Cableways. (Overhead Suspension.)

Amburn Co. (Tramway Department, New York, N. Y.)  
Broderick & Bascom Rope Co., St. Louis, Mo.  
Flory Mfg. Co., S., Bangor, Pa.  
Lidgerwood Mfg. Co., New York, N. Y.  
Roebeling's Sons Co., John A., Trenton, N. J.

## Can and Box Making Machinery. (Tin.)

Ans Machine Co., Max, Mt. Vernon, N. Y.  
Bliss Co., E. W., Brooklyn, N. Y.

## Canning Machinery and Supplies.

Robins & Co., A. E., Baltimore, Md.  
Sprague Canning Machinery Co., Chicago, Ill.

## Carborundum Paper and Cloth.

Carborundum Co., Niagara Falls, N. Y.

## Cars. (Dump, Industrial, Logging and Mine.)

Austin Mfg. Co., Chicago, Ill.  
Chase Fdry. & Mfg. Co., Columbus, O.  
Curd, Geo. B., Cincinnati, Ohio  
Electric Wheel Co., (Mfrs.), Quincy, Ill.  
Georgia Car & Locomotive Co., Atlanta, Ga.  
Hunt Co., C. W., Inc., West New Brighton, N. Y.  
Kilbourne & Jacobs Mfg. Co., Columbus, Ohio.  
Oliver Mfg. Co., Wm. J., Knoxville, Tenn.  
Western Wheel Scraper Co., Aurora, Ill.

## Cars. (Passenger and Freight.) [See Railroad Equipment and Supplies.]

## Car Unloaders.

Bonney Supply Co., Rochester, N. Y.

## Car Wheels, Axles and Trucks.

Carnegie Steel Co., Pittsburgh, Pa.  
Oliver Mfg. Co., Wm. J., Knoxville, Tenn.

## Cast Iron Pipe. (See Pipe.) [Cast Iron.]

Castings. (Aluminum.)  
Aluminum Company of America, Pittsburgh, Pa.

## Castings. (Brass and Bronze.)

McKenna Bros. Brass Co., Pittsburgh, Pa.  
Triumph Electric Co., Cincinnati, O.

## Castings. (Gray Iron.)

Columbian Iron Works, Chattanooga, Tenn.  
Georgia Car & Locomotive Co., Atlanta, Ga.  
Glanmoran Pipe & Foundry Co., Lynchburg, Va.  
Hall's Sons, D. F., Hagerstown, Md.  
Phoenix Iron Works Co., Meadville, Pa.  
U. S. Cast Iron Pipe & Fdry. Co., Burlington, N. J.  
Valik & Murdoch Iron Works, Charleston, S. C.  
Westbrook Elevator Co., Danville, Va.

## Castings. (Malleable Iron and Steel.)

Columbus Malleable Iron Co., Columbus, Ohio.  
General Malleable Co., Warren, O.  
Missouri Malleable Iron Co., East St. Louis, Ill.

## Castings. (Steel.)

Crucible Steel Castings Co., Lansdowne, Pa.  
Hoffman & Co., Inc., R. O., Baltimore, Md.  
Phoenix Iron Works Co., Meadville, Pa.  
Riverside Steel Casting Co., Newark, N. J.

## Ceilings. (Metal.)

Edwards Manufacturing Co., Cincinnati, O.  
Keighley Metal Cell. & Mfg. Co. S., Pittsburgh, Pa.

## Cement.

Clinchfield Portland Cem. Corp., Kingsport, Tenn.  
Dixie Portland Cement Co., Chattanooga, Tenn.  
Hartman Portland Cement Co., Wm. G., Philadelphia, Pa.  
Kirkpatrick Sand & Cement Co., Birmingham, Ala.  
Kosmos Portland Cement Co., Inc., Louisville, Ky.  
Lehigh Portland Cement Co., Allentown, Pa.  
Southern States Portland Cem. Co., Rockmart, Ga.  
Standard Portland Cement Co., Leeds, Ala.

## Cement Machinery.

Allis-Chalmers Mfg. Co., Milwaukee, Wis.  
Power & Mining Machinery Co., Cudahy, Wis.  
Raymond Bros. Impact Pulv. Co., Chicago, Ill.



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**Contractors (Drainage)**  
Globe Dredging Co., Savannah, Ga.  
Thompson & Moseley, Inc., Greensboro, N. C.

**Contractors (Dredging)**  
Globe Dredging Co., Savannah, Ga.

**Contractors (Hydro-Electric Developments)**  
Requarth Co., O. W., Charlotte, N. C.

**Contractors (Reinforced Concrete)**  
Hayward & Ashby, Rocky Mount, N. C.  
Requarth Co., C. W., Charlotte, N. C.

**Contractors (Water Supply)**  
Layne & Bowler Co., Houston, Tex.

**Contractors Machinery and Supplies.** [See also Hoisting Machinery.]

American Clay Machinery Co., The, Bucyrus, Ohio.

Austin Mfg. Co., Chicago, Ill.

Branner, Frederick, Pittsburgh, Pa.

Greer Mach. Co., The, John F., Havana, O.

Ord, Geo. B., Cincinnati, O.

Flory Mfg. Co., S., Bangor, Pa.

Marine Metal & Supply Co., New York, N. Y.

Niburn Co., Alex. N., Baltimore, Md.

Monaghan Mch. Co., Chicago, Ill.

National Hoisting Engine Co., Harrison, N. J.

Oliver Mfg. Co., Wm. J., Knoxville, Tenn.

Sherwood, E. C., New York, N. Y.

Sterling Machinery Co., New York, N. Y.

Thaw & Williams, Cincinnati, Ohio.

**Conveying and Elevating Machinery.**

Amburean Co., (Tramway Department), New York, N. Y.

Garfield & Snow Co., C. O., Cleveland, O.

Goldwell & Son Co., H. W., Chicago, Ill.

Flory Mfg. Co., S., Bangor, Pa.

Guarantee Construction Co., New York, N. Y.

Hunt Co., C. W., Inc., West New Brighton, N. Y.

Jeffrey Mfg. Co., Columbus, O.

Lidgerwood Mfg. Co., New York, N. Y.

Link-Belt Co., Philadelphia, Pa.

Mathews Gravity Carrier Co., Ellwood City, Pa.

McLanahan-Stone Mach. Co., Hollidaysburg, Pa.

Weller Mfg. Co., Chicago, Ill.

**Copperage Stock and Box Shook Machinery.**

Gerlach Co., Peter, Cleveland, O.

**Cordage.**

Broderick & Bascom Rope Co., St. Louis, Mo.

Columbian Rope Co., Auburn, N. Y.

Waterbury Co., New York, N. Y.

**Core Drilling.**

Ameling Prospect & Co., H. K. St. Louis, Mo.

Sprague & Henwood, Inc., Scranton, Pa.

**Core-Mill Machinery.**

Raymond Bros. Impact, Pulv. Co., Chicago, Ill.

Sharr Co., B. F., Baltimore, Md.

Wolf Co., Chambersburg, Pa.

**Cotton Oil and Products.**

American Cotton Oil Co., New York, N. Y.

Cotton Yarns. (Commission Merchants.)

Paulson, Linkroom & Co., New York, N. Y.

**Cotton-Gin Machinery.**

Carver Cotton Gin Co., East Bridgewater, Mass.

Continental Gin Co., Birmingham, Ala.

Murray Co., The, Atlanta, Ga.

**Cotton-Mill Machinery.**

Crompton & Knowles Loom Works, Worcester, Mass.

Draper Co., Hopedale, Mass.

Mason Machine Works, Taunton, Mass.

Saco-Lowell Shop, Boston, Mass.

Whitinsville Spin'g Ring Co., Whitinsville, Mass.

**Cotton-Mill Supplies.**

American Supply Co., Providence, R. I.

Crompton & Knowles Loom Works, Worcester, Mass.

Whitinsville Spin'g Ring Co., Whitinsville, Mass.

**Cottonseed-Oil Machinery.**

Backe Iron & Brass Works, Dayton, O.

Burpee Engineering Co., Atlanta, Ga.

Carver Cotton Gin Co., East Bridgewater, Mass.

Continental Gin Co., Birmingham, Ala.

French Oil Mill Machinery Co., Piqua, O.

Murray Co., The, Atlanta, Ga.

## Crosssties. (Steel.)

Carnegie Steel Co., Pittsburgh, Pa.

## Crushed Stone. (Road Concrete and Ballast.)

American Ballast Co., Knoxville, Tenn.

Atlantic Stone Co., Atlanta, Ga.

Bald Mountain Quarry, Newcom, N. C.

Chickamauga Quarry & Construction Co., Chattanooga, Tenn.

Kirkpatrick Sand & Cement Co., Birmingham, Ala.

Weston Brook Quarry Co., Columbia, S. C.

## Crushers. (Corn and Cobb.)

Grundler Pat. Crusher & Pulv. Co., St. Louis, Mo.

Jeffrey Mfg. Co., Columbus, O.

Raymond Bros. Impact Pulv. Co., Chicago, Ill.

## Crushers. (Rock.)

Austin Mfg. Co., Chicago, Ill.

Buchanan Co., Inc., O. G., New York, N. Y.

Chalmers & Williams, Chicago Heights, Ill.

Power & Mining Machinery Co., Cudahy, Wis.

Raymond Bros. Impact Pulv. Co., Chicago, Ill.

Universal Road Mch. Co., Kingston, N. Y.

Western Wheeled Scraper Co., Aurora, Ill.

## Crushing and Pulverizing Machinery.

Allis-Chalmers Mfg. Co., Milwaukee, Wis.

Austin Mfg. Co., Chicago, Ill.

Bartlett & Snow Co., O. G., Cleveland, O.

Buchanan Co., Inc., C. G., New York, N. Y.

Chalmers & Williams, Chicago Heights, Ill.

Grundler Pat. Crusher & Pulv. Co., St. Louis, Mo.

Jeffrey Mfg. Co., Columbus, O.

McLanahan-Stone Mach. Co., Hollidaysburg, Pa.

Raymond Bros. Impact Pulv. Co., Chicago, Ill.

Siedman's Foundry & Machine Works, Aurora, Ill.

Western Wheeled Scraper Co., Aurora, Ill.

## Culvert Pipe. (Cast Iron.)

American Cast Iron Pipe Co., Birmingham, Ala.

American Pipe & Const. Co., Philadelphia, Pa.

Clow & Sons, James B., Chicago, Ill.

Donaldson Iron Co., Emaus, Pa.

Glanorgan Pipe & Foundry Co., Lynchburg, Va.

Lynchburg Foundry Co., Lynchburg, Va.

Massillon Iron & Steel Co., Massillon, Ohio.

U. S. Cast Iron Pipe & Fdy. Co., Burlington, N. J.

Wood & Co., R. D., Philadelphia, Pa.

## Culverts. (Corrugated Metal.)

American Sheet & Tin Plate Co., Pittsburgh, Pa.

Culvert Publicity Bureau, Cincinnati, O.

Atlas Metal Works, Dallas, Tex.

Canton Culvert and Silo Co., The, Canton, O.

Dixie Culvert & Metal Co., Atlanta, Ga.

Fouts Co., C. C., Middletown, O.

Gallon Iron Works & Mfg. Co., The, Gallon, Ohio.

Lone Star Culvert Co., Houston, Tex.

National Corrugated Culvert Mfg. Co., Warren, Pa.

Newport Culvert Co., Inc., Newport, Ky.

Salisbury Metal Culvert Co., Salisbury, N. C.

Tennessee Metal Culvert Co., Nashville, Tenn.

Virginia Metal & Culvert Co., Inc., Roanoke, Va.

## Culverts. (Vitrified Pipe.)

Southern Sewer Pipe Co., Birmingham, Ala.

Stevens Sons Co., H., Macon, Ga.

## Curb Protector. (Steel.)

Steel Protected Concrete Co., Philadelphia, Pa.

## Cutter Grinders.

Vitrified Wheel Co., Westfield, Mass.

## Cutting. (Oxy-Acetylene Process.)

Prest-O-Lite Co., Inc., The, Indianapolis, Ind.

## Cuts. (Half Tone, Line, Etc.)

Alpha Photo Engraving Co., Balto, Md.

Baltimore-Maryland Engraving Co., Baltimore, Md.

## Derricks and Derrick Fittings.

Byers Mach. Co., The, John F., Havana, O.

Hayward Co., The, New York, N. Y.

Monaghan Machine Co., Chicago, Ill.

**Designers and Illustrators. (Printed Matter.)**

Alpha Photo Engraving Co., Baltimore, Md.

Baltimore-Maryland Engraving Co., Baltimore, Md.

## Diamond Core Drilling.

Ameling Prospecting Co., J. R., St. Louis, Mo.

Sprague & Henwood, Inc., Scranton, Pa.

## Disposal Plants. (Garbage Incinerators.)

Stacy-Bates Co., Minneapolis, Minn.

## Ditching Machinery.

American Steel Dredge Co., Fort Wayne, Ind.

Bay City Dredge Works, Bay City, Mich.

Economy Excavator Co., Iowa Falls, Iowa.

Fairbanks Steam Shovel Co., Marion, O.

Hayward Co., The, New York, N. Y.

Marion Steam Shovel Co., Marion, O.

Monaghan Machine Co., Chicago, Ill.

Thew Automatic Shovel Co., Lorain, Ohio.

Williams Co., The, G. B., Cleveland, O.

## Doors. (Steel Rolling.)

Kinnear Mfg. Co., Columbus, O.

Van Harlingen, J. M., Atlanta, Ga.

## Doors. (Tin Clad.)

Victor Mfg. Co., Newburyport, Mass.

## Double Seamers.

Ans Machine Co., Max, Mt. Vernon, N. Y.

## Draftsmen.

Childrey Co., Richmond, Va.

## Draftsmen's Supplies.

Weber & Co., F., Philadelphia, Pa.

**Dredging Contractors.** [See Contractors (Dredging).]

## Dredge Chains.

Weimer Chain & Iron Co., Lebanon, Pa.

## Dredges. [See Excavating Machinery.]

**Drills. (Pneumatic.)** [See also Drills Rock and Mining.]

**Drills. (Prospecting.)**

Keystone Steam Well Mach. Co., Beaver Falls, Pa.

## Drills. (Rock and Mining.)

Jeffrey Mfg. Co., Columbus, O.

Sullivan Mchry. Co., Chicago, Ill.

## Drills. (Twist.)

McKenna Bros. Brass Co., Pittsburgh, Pa.

Morse Twist Drill & Mch. Co., New Bedford, Mass.

**Drive Well Points and Well Supplies.**

National Tube Co., Pittsburgh, Pa.

## Drop Forgings.

American Spiral Pipe Works, Chicago, Ill.

## Drop Forging Machinery.

Rissa Co. E. W., Brooklyn, N. Y.

Erie Foundry Co., Erie, Pa.

## Dryers. (Sand.) [See Sand Dryers.]

## Dry Docks. (Builders of)

American Bridge Co., of New York, N. Y.

## Drying Machinery.

American Process Co., New York, N. Y.

Bailey-Lobby Co., The, Charleston, S. C.

Buffalo Forge Co., Buffalo, N. Y.

Coatesville, Boiler Works, Coatesville, Pa.

Cumner & Son Co., F. D., The, Cleveland, Ohio.

Hersey Manufacturing Co., South Boston, Mass.

Ruggles-Coles Engineering Co., New York, N. Y.

Starlevant Co., B. F., Hyde Park, Boston, Mass.

## Dry Kilns.

Buffalo Forge Co., Buffalo, N. Y.

Moore Dry Kiln Co., L., Jacksonville, Fla.

## Dry Kiln Equipment.

Moore Dry Kiln Co., L., Jacksonville, Fla.

## Dumbwaiters. (Hand Power.)

McKenna Bros. Brass Co., Pittsburgh, Pa.

Spindel, J. G., Reading, Pa.

## Dust-Collecting System.

Buffalo Forge Co., Buffalo, N. Y.

King Co., F. E., Norfolk, Va.

South Atlantic Blow Pipe & Sheet Metal Co., Savannah, Ga.

## Dynamite. (Industrial and Agricultural.)

Du Pont Powder Co., Wilmington, Del.

Keystone Nat'l Powder Co., Emporium, Pa.

## Dynamics and Motors.

Assets Purchasing Co., Wheeling, W. Va.

General Electric Co., Schenectady, N. Y.

Pan Electric Mfg. Co., St. Louis, Mo.

Terry Steam Turbine Co., Hartford, Conn.

Triumph Electric Co., Cincinnati, O.

Western Electric Co., New York, N. Y.

## Eaves. (Trough.)

Edwards Mfg. Co., Cincinnati, O.

## Ejectors. (Sewage.)

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**Engineers.****LIGHTING**

Ford, Bacon & Davis, New York, N. Y.  
McCrady & Co., J. B., Atlanta, Ga.  
Rucker, H. Parks, Charlotte, N. C.

**MECHANICAL**

Arnold Co., The, Chicago, Ill.  
Graves Engineering Co., Inc., New York, N. Y.  
Kelly, Thos. G., Cincinnati, Ohio.  
Lewis, Fred H., Birmingham, Ala.  
Lide, Martin J., Birmingham, Ala.  
McLundie, A. S., Chattanooga, Tenn.  
Meade, Richard K., Baltimore, Md.  
Stevens, Harry, Washington, D. C.  
Tucker & Laxon, Charlotte, N. C.

**MINING**

Brown & Clarkson, Washington, D. C.  
Grimsley, G. P., Martinsburg, W. Va.  
Hogue Engineering Ass'n, Charleston, W. Va.  
Jones, E. M., Chattanooga, Tenn.  
Renshaw & Breece, Huntington, W. Va.

**MUNICIPAL**

Anderson & Christie, Charlotte, N. C.  
Brown & Clarkson, Washington, D. C.  
Crosby, Walter W., Baltimore, Md.  
Dabney Engineering Co., Memphis, Tenn.  
Elrod, Henry E., Dallas, Texas.  
Greiner Engineering Co., Inc., New York, N. Y.  
Greiner & Whitman, Baltimore, Md.  
Havely, H. B., Monroe, N. C.  
Hayward & Ashby, Rocky Mount, N. C.  
Hogue Engineering Ass'n, Charleston, W. Va.  
Knowles, Morris, Pittsburgh, Pa.  
McCrady Bros. & Cheves, Inc., Charleston, S. C.  
McCrady Co., J. B., Atlanta, Ga.  
Moore & Thomas, Vicksburg, Miss.  
Pew, Arthur, Atlanta, Ga.  
Shand Engineering Co., Columbia, S. C.  
Walker Engineering Corp., Tampa, Fla.  
White, Gilbert O., Charlotte, N. C.

**PAVING AND ROAD**

Anderson & Christie, Charlotte, N. C.  
Atlantic Engineering Co., Savannah, Ga.  
Crosby, Walter W., Baltimore, Md.  
Elrod, Henry E., Dallas, Texas.  
Havely, H. B., Monroe, N. C.  
Institute of Industrial Research, Washington, D. C.  
McCrady Bros. & Cheves, Inc., Charleston, S. C.  
Moore & Thomas, Vicksburg, Miss.  
Shand Engineering Co., Columbia, S. C.  
Walker Engineering Corp., Tampa, Fla.  
White Companies, J. G., New York, N. Y.

**PUBLIC SERVICE PROPERTIES**

Day & Zimmerman, Philadelphia, Pa.  
Ferree Co., The H. G., Memphis, Tenn.  
Ford, Bacon & Davis, New York, N. Y.  
Gilman, Harry L., Boston, Mass.  
Graves Engineering Co., Inc., New York, N. Y.  
Scott Engineering Co., Philadelphia, Pa.  
Stone & Webster Engr. Corp., Boston, Mass.  
Weller, Francis R., Washington, D. C.  
White Companies, J. G., New York, N. Y.

**REINFORCED CONCRETE. (Bridges, Buildings, etc.)**

Cunningham Construction Co., Shreveport, La.  
Foster-Creighton-Gould Co., Nashville, Tenn.  
Guarantee Construction Co., New York, N. Y.  
Hayward & Ashby, Rocky Mount, N. C.  
Interstate Const. Co., Louisville, Ky.  
Luten, Daniel B., Indianapolis, Ind.  
Martin Co., A. J., Portsmouth, Ohio.  
Requarth Co., C. W., Charlotte, N. C.  
Savannah Eng. & Construction Co., Savannah, Ga.  
Spiker, William O., Atlanta, Ga.  
Tucker & Laxon, Charlotte, N. C.  
White Companies, J. G., New York, N. Y.

**RIVER AND HARBOR**

Gilman, Harry L., Boston, Mass.

**SEWERAGE AND WATER-WORKS**

Anderson & Christie, Charlotte, N. C.  
Brown & Clarkson, Washington, D. C.  
Dabney Engineering Co., Memphis, Tenn.  
Ford, Bacon & Davis, New York, N. Y.  
Greiner & Whitman, Baltimore, Md.  
Havely, H. B., Monroe, N. C.  
Hill, Nicholas S., Jr., and S. F. Ferguson, New York, N. Y.  
Knowles, Morris, Pittsburgh, Pa.  
Mayer, J. H., Birmingham, Ala.  
Miller, Hiram Allen, Boston, Mass.  
Myers, E. W., Greensboro, N. C.  
Pew, Arthur, Atlanta, Ga.  
Quick, Alfred M., Baltimore, Md.  
Stevens, Harry, Washington, D. C.  
Walker Engineering Corp., Tampa, Fla.  
White Companies, J. G., New York, N. Y.  
White, Gilbert O., Charlotte, N. C.

**STEEL WORK AND ROLLING MILLS**

Smythe Co., The S. R., Pittsburgh, Pa.

**STRUCTURAL STEEL**

Foster-Creighton-Gould Co., Nashville, Tenn.  
Shearer, O. E., Memphis, Tenn.  
Spiker, Wm. O., Atlanta, Ga.  
Renshaw & Breece, Huntington, W. Va.

**THEATRE CONSTRUCTION**

Gallin, W. R., Hopkinsville, Ky.

**Engines****COMPRESSED AIR**

Dake Engine Co., Grand Haven, Mich.

**GAS AND GASOLINE**

Affiliated Manufacturers Co., Milwaukee, Wis.  
Allie-Chalmers Manufacturing Co., Milwaukee, Wis.  
Cooper Co., G. & G., Mt. Vernon, Ohio.  
De La Vergne Machine Co., New York, N. Y.  
Gas Engineering Co., Trenton, N. J.  
Mietz, A., New York, N. Y.  
Portsmouth Engine Co., Portsmouth, O.  
Southern Engine & Boiler Works, Jackson, Tenn.  
Van Dusen, Roy Co., The, Columbus, O.  
Westinghouse Machine Co., The, Pittsburgh, Pa.

**OIL**

Bolton Co., New York, N. Y.  
Chicago Pneumatic Tool Co., Chicago, Ill.  
De La Vergne Machine Co., New York, N. Y.  
Fairbanks-Morse & Co., Atlanta, Ga.  
Mietz, A., New York, N. Y.  
Moore & Sons Corp., Samuel L., Elizabeth, N. J.  
Power Mfg. Co., Lima, Ohio.  
Snow Steam Pump Plant, The, New York, N. Y.

**STEAM**

Allie-Chalmers Manufacturing Co., Milwaukee, Wis.  
Ball Engine Co., Erie, Pa.  
Buffalo Forge Co., Buffalo, N. Y.  
Cameron & Barkley Co., Charleston, S. C.  
Chicago House Wrecking Co., Chicago, Ill.  
Cooper Co., O. & G., Mt. Vernon, Ohio.  
Dake Engine Co., Grand Haven, Mich.  
Griffith & Wedge Co., The, Zanesville, O.  
Houston, Stanwood & Gamble Co., Cincinnati, O.  
Laffel & Co., James, Springfield, O.  
Lombard Iron Works, Augusta, Ga.  
Mecklenburg Iron Works, Charlotte, N. C.  
Murray Iron Works Co., Burlington, Ia.  
Phoenix Iron Works Co., Medford, Pa.  
Schaeffler Iron Works, Macon, Ga.  
Sturtevant Co., B. F., Hyde Park, Boston, Mass.  
Vilter Mfg. Co., Milwaukee, Wis.  
Westinghouse Machine Co., Pittsburgh, Pa.

**Envelopes**

Young & Selden Co., Baltimore, Md.

**Excavating Machinery**

American Clay Machinery Co., The, Bucyrus, Ohio.  
American Steel Dredge Co., Fort Wayne, Ind.  
Bay City Dredge Works, Bay City, Mich.  
Byers Mach. Co., The John F., Ravenna, O.  
Economy Excavator Co., Iowa Falls, Iowa.  
Fairbanks Steam Shovel Co., Marion, O.  
Hayward Co., New York, N. Y.  
Jeffrey Mfg. Co., Columbus, O.  
Lidgerwood Mfg. Co., New York, N. Y.  
Marion Steam Shovel Co., Marion, O.  
Monaghan Machine Co., Chicago, Ill.  
Morris Machine Works, Baldwinville, N. Y.  
National Hoisting Engine Co., Harrison, N. J.  
Thew Automatic Shovel Co., Lorain, Ohio.  
Williams Co., The G. H., Cleveland, O.

**Excavators. (Trench)**

Bay City Dredge Works, Bay City, Mich.  
Economy Excavator Co., Iowa Falls, Iowa.  
Fairbanks Steam Shovel Co., Marion, O.  
Hayward Co., The, New York, N. Y.  
Monaghan Machine Co., Chicago, Ill.

**Excelsior Machinery**

Kline, Lewis T., Alpena, Mich.

**Exhaust Heads**

American Spiral Pipe Works, Chicago, Ill.

**Exhibits. (Machinery Builders' Equipment and Supplies)**

Builders' Exchange, Baltimore, Md.

**Expansion Joints**

Badger & Sons Co., E. B., Boston, Mass.

**Expansion Joints. (Street and Road)**

Philip Carey Co., The, Cincinnati, Ohio.

**Expanded Metal. [See Lath.]****Explosives**

Du Pont Powder Co., Wilmington, Del.  
Keystone Nat'l. Powder Co., Emporium, Pa.

**Export Agents. (South America)**

Lutz, Friedr. W., Richmond, Va.

**Factory Sites. (Town and Railroad.) [See Industrial, Agricultural and Commercial Opportunities.]**

General Electric Co., Schenectady, N. Y.

**Fans. (Electric)**

General Electric Co., Schenectady, N. Y.

**Fans. (Ventilating.) [See Blowers, Exhaust Fans.]****Fastener Driving Machine. (Corrugated Joint)**

Saranac Machine Co., Benton Harbor, Mich.

**Feed-Water Heaters and Purifiers**

American Water Softener Co., Philadelphia, Pa.  
Blake & Knowles Steam Pump Works, East Cambridge, Mass.

**Feed-Water Heater and Purifier and Oil Separator Combined**

Blake & Knowles Steam Pump Works, East Cambridge, Mass.  
Platt Iron Works Co., Dayton, Ohio.  
Stewart Heater Co., Buffalo, N. Y.

**Felt. (Building, Sheathing)**

Barrett Mfg. Co., Philadelphia, Pa.

**Fencing. (Woven Wire Field)**

American Steel & Wire Co., Chicago, Ill.

**Fencing. Entrance Gates. (Iron, Steel, Wire)**

American Steel & Wire Co., Chicago, Ill.  
Hollies Iron & Wire Wks., J. E., Detroit, Mich.  
Cincinnati Iron Fence Co., Cincinnati, Ohio.  
Cyclone Fence Co., Waukegan, Ill.  
Dow Wire & Iron Works, Louisville, Ky.  
Dufur & Co., Baltimore, Md.  
Eureka Supply Co., Chattanooga, Tenn.  
New Jersey Wire Cloth Co., Trenton, N. J.  
Ohio Elevator & Mach. Co., The, Columbus, O.

**Fertilizer Machy. [See also Phosphate Mch.]**

Stedman's Foundry & Machine Works, Aurora, Ind.  
Valk & Murdoch Iron Works, Charleston, S. C.

**Files**

Harnett Co., G. & H., Philadelphia, Pa.  
Nicholson File Co., Providence, R. I.

**Filters. (Water, for Domestic and Industrial Purposes)**

American Water Softener Co., Philadelphia, Pa.  
International Filter Co., Chicago, Ill.  
New York Con. Jewell Fil. Co., New York, N. Y.

**Fire Clay. [See Brick, Fire.]****Fire Door Fixtures**

Richmond Safety Gate Co., Richmond, Ind.  
Victor Mfg. Co., Newburyport, Mass.

**Fire Extinguishers**

Badger & Sons Co., E. B., Boston, Mass.

**Fire Escapes**

Bolles Iron & Wire Works, J. E., Detroit, Mich.  
Chesapeake Iron Works, Baltimore, Md.  
Eureka Supply Co., Chattanooga, Tenn.

**Fire Hose**

Eureka Fire Hose Mfg. Co., New York, N. Y.

**Fire Places. (Brick and Tile)**

Hood Brick Co., B. Mifflin, Atlanta, Ga.

**Fireproof Building Construction. [See Concrete Construction.]****Fireproof Building Material**

Bannon Pipe Co., P., Louisville, Ky.  
John-Manville Co., H. W., New York, N. Y.

**Fireproof Doors and Shutters**

Kinnear Mfg. Co., Columbus, O.  
Richmond Safety Gate Co., Richmond, Ind.  
Victor Mfg. Co., Newburyport, Mass.  
Wagner's Sons Co., J. F., Louisville, Ky.  
Wilson Corp., J. G., New York, N. Y.

**Fireproof Windows. [See Window Frames and Sashes. (Fireproof.)]****Fittings. (Wire Rope)**

Waterbury Co., New York, N. Y.

**Fireproofing. (Brick and Tile)**

Hood Brick Co., B. Mifflin, Atlanta, Ga.

**Fixtures. (Electric Lighting)**

Hill & Co., Walter E., Baltimore, Md.

**Flanges. (Iron and Steel)**

American Cast Iron Pipe Co., Birmingham, Ala.  
American Pipe & Construction Co., Phila., Pa.  
American Spiral Pipe Works, Chicago, Ill.  
Dart Mfg. Co., E. M., Providence, R. I.  
Giamorgan Pipe & Foundry Co., Lynchburg, Va.  
National Tube Co., Pittsburgh, Pa.  
U. S. Cast Iron Pipe & Fdry. Co., Burlington, N. J.  
Wood & Co., R. D., Philadelphia, Pa.

**Flooring. (Composition)**

Petro Pulp Floor Co., Kansas City, Mo.

**Flooring. (Grooved Block)**

Republic Grooving Co., Indianapolis, Ind.

**Flooring. (Hardwood, Maple, Oak)**

Whiting, William S., Elizabethton, N. C.

**Floor Surfacing Machines. (Automatic Ball Bearing, Electric)**

Waywell Chappell & Co., Chicago, Ill.

**Flour and Grist Mill Machinery and Supplies**

Caldwell & Sons Co., H. W., Chicago, Ill.  
Salem Foundry & Machine Works, Salem, Va.  
Starr Co., B. F., Baltimore, Md.  
Wolf Co., Chambersburg, Pa.

**Flue Lining**

Owensboro Sewer Pipe Co., Owensboro, Ky.  
Southern Sewer Pipe Co., Birmingham, Ala.

**Forges**

Buffalo Forge Co., Buffalo, N. Y.

**Forgings**

Weimer Chain & Iron Co., Lebanon, Pa.

**Foundations. (Waterproof)**

Requarth Co., O. W., Charlotte, N. C.

**Foundry Equipment and Supplies**

Hill-Brunner Fdry. Supply Co., Cincinnati, O.  
Newport Sand Bank Co., Inc., Newport, R. I.

**Foundry Facings. (Talc and Soapstones)**

Georgia Talc Co., Asheville, N. C.  
Hill-Brunner Fdry. Supply Co., Cincinnati, O.

**Foundry and Machine Shops**

Giamorgan Pipe & Foundry Co., Lynchburg, Va.  
Golden Foundry & Machine Wks., Columbus, Ga.  
Grainer & Co., Inc., Louisville, Ky.  
Lombard Iron Works, Augusta, Ga.  
Titus, E. E., Petersburg, Va.  
Valk & Murdoch Iron Works, Charleston, S. C.

**Frogs. [See Railroad Frogs and Switches.]**

Fuel Economizer.  
Green Fuel Economizer Co., Mattawan, N. Y.  
Sturtevant Co., B. F., Hyde Park, Boston, Mass.

**Fuel Oil**

Gulf Refining Co., Pittsburgh, Pa.  
U. S. Asphalt Refining Co., New York, N. Y.

**Furnaces. (For Industrial Purposes)**

Smythe Co., The S. R., Pittsburgh, Pa.

**Furniture. (Metal)**

The Van Dorn Iron Works Co., Cleveland, Ohio.

**Fuses. (Electrical)**

Economy Fuse & Mfg. Co., Chicago, Ill.

**Fuse Shells. (Renewable)**

Economy Fuse & Mfg. Co., Chicago, Ill.

**Fuses, Bases and Fittings**

Johns-Manville Co., H. W., New York, N. Y.

**Galvanized Steel and Iron**

American Sheet & Tin Plate Co., Pittsburgh, Pa.  
La Belle Iron Works, Steubenville, O.  
McCalla Co., Harold, Philadelphia, Pa.  
Whitaker-Glessner Co., Portsmouth Plant, Portsmouth, Ohio.  
Wood Iron & Steel Co., Alan, Philadelphia, Pa.  
Youngstown Sheet & Tube Co., Youngstown, O.

**Galvanizing Machinery. (Sheet)**

Erie Foundry Co., Erie, Pa.

**Garage and House. (Portable)**

Dixie Culvert & Metal Co., Atlanta, Ga.  
Steel Products Co., The, Savannah, Ga.

**Garbage Disposal Plants**

Stacy-Bates Co., Minneapolis, Minn.

**Gas Blowers. (Turbine)**

Terry Steam Turbine Co., Hartford, Conn.

**Gas Engines. [See Engines, Gas.]****Gas Machines**

Kemp Mfg. Co., O. M., Baltimore, Md.  
Milburn Co., Alex. H., Baltimore, Md.

**Gas Plants**

Gas Engineering Co., Trenton, N. J.  
Power & Mining Machinery Co., Oshkosh, Wis.  
Western Gas Construction Co., Ft. Wayne, Ind.

**Gas Producers**

Smythe Co., The S. R., Pittsburgh, Pa.  
Westinghouse Machine Co., Pittsburgh, Pa.  
Wood & Co., R. D., Philadelphia, Pa.

**Gasoline and Kerosene**

Gulf Refining Co., Pittsburgh, Pa.

**Gas and Steam Fitters' Tools**

Saunders' Sons, D., Yonkers, N. Y.

**Gears**

Caldwell & Sons Co., H. W., Chicago, Ill.  
Oresson-Morris Co., Philadelphia, Pa.  
James Mfg. Co., D. O., Chicago, Ill.  
Jeffrey Mfg. Co., Columbus, O.

**Generating Sets**

Sturtevant Co., B. F., Hyde Park, Boston, Mass.  
Triumph Electric Co., Cincinnati, O.

**Geologists**

Davis, Geo. O., Phila., Pa.  
Froehling & Robertson, Richmond, Va.  
Grimsley, G. P., Martinsburg, W. Va.

**Glass. (Plate, etc.)**

Binswanger & Co., Memphis, Tenn.

**Governors. (Steam Engine)**

Pickering Governor Co., Portland, Conn.

**Grain Elevator Supplies**

Caldwell & Sons Co., H. W., Chicago, Ill.  
Jeffrey Mfg. Co., Columbus, O.  
Link-Belt Co., Philadelphia, Pa.

**Granite**

Southern Marble & Granite Co., Spartanburg, S. C.

**Graphite**

Dixon Crucible Co., Joseph, Jersey City, N. J.

**Grates and Grate Bars**

Hunter Grate Bar & Sinking Co., Baltimore, Md.  
Thomas Grate Bar Co., Birmingham, Ala.

**Gravel**

Arundel Sand & Gravel Co., Baltimore, Md.

**Gravel. (Roofing and Road)**

American Ballast Co., Knoxville, Tenn.

**Gravity Spiral Chutes**

Mathews Gravity Carrier Co., Ellwood City, Pa.

**Grease**

Albany Lubricating Co., New York, N. Y.

**Grease Cups**

Albany Lubricating Co., New York, N. Y.  
Lunkensheimer Co., The, Cincinnati, O.

**Greases and Lubricating Compounds**

Albany Lubricating Co., New York, N. Y.  
Galena Signal Oil Co., Franklin, Pa.  
Robinson & Son Co., Wm. O., Baltimore, Md.

**Grinders. (Gypsum, Limestone, etc.)**

Widman's Foundry & Machine Wks., Aurora, Ill.

**Grinding Wheels**

Carborundum Co., Niagara Falls, N. Y.  
Vitrified Wheel Co., Westfield, Mass.

**Groovers**

Holter Bros. Saw Mfg. Co., Inc., Rochester, N. Y.

**Gunpowder**

Du Pont Powder Co., Wilmington, Del.  
Keystone National Powder Co., Emporium, Pa.

**Hammers. (Steam)**

Erie Foundry Co., Erie, Pa.

**Handle Machinery. [See Woodworking Mch.]****Hangers. [See Pulleys, Shafting and Hangers.]****Hay Tools**

Myers & Bro., F. E., Ashland, Ohio.

**Heater. (Asphalt)**

Gummer & Son Co., F. D., The, Cleveland, Ohio.

**Heating Apparatus, Engineers and Contractors**

Allen-Scales Engineering Co., Inc., Nashville, Tenn.  
American Bl



- Industrial Track Work.** [See Railways, Ind.]
- Injectors.**  
Jenkins Bros., New York, N. Y.  
Lunkenheimer Co., The, Cincinnati, O.  
Randle Machinery Co., Cincinnati, O.  
Sellers & Co., Inc., Wm., Philadelphia, Pa.
- Insulating Materials.**  
General Electric Co., Schenectady, N. Y.  
John-Manville Co., H. W., New York, N. Y.
- Insurance.**  
Hartford Steam Boiler Inspector & Insurance Co., Hartford, Conn.
- Investment Securities.**  
Leach & Co., A. B., New York, N. Y.  
New First National Bank, Columbus, O.  
Powell, Garard & Co., Chicago, Ill.  
Provident Savings Bank & Trust Co., Cincinnati, Ohio.
- Iron.**  
Allegheny Steel Co., Pittsburgh, Pa.  
La Belle Iron Works, Steubenville, O.  
Republic Iron & Steel Co., Youngstown, O.  
Tennessee Coal, Iron & R. R. Co., Birmingham, Ala.  
Union Drawn Steel Co., Beaver Falls, Pa.  
Wood Iron & Steel Co., Alan, Philadelphia, Pa.
- Irrigation Machinery.**  
Cameron Steam Pump Wks., A. S. New York, N. Y.
- Joist Hangers.**  
The Van Dorn Iron Works Co., Cleveland, Ohio
- Kettles. (Steam Jacket.)**  
Badger & Sons Co., E. B., Boston, Mass.
- Lace Leather.**  
Grison & Knight Mfg. Co., Worcester, Mass.
- Lamps. (Arc and Incandescent.)**  
Boston-Economy Lamp Division, National Lamp Works of General Electric Co., Danvers, Mass.  
General Electric Co., Schenectady, N. Y.  
Piedmont Electric Co., Asheville, N. C.
- Lamps. (Carbon and Tungsten.)**  
Newman Electric Lamp Co., Cincinnati, O.
- Lamp Posts. (Electric, Gas.)**  
Western Gas Construction Co., Ft. Wayne, Ind.
- Lands. (Mineral, Timber, Farm, etc.)** [See Industrial, Agricultural and Commercial Opportunities.]
- Landscape Architects. (See Engineers.)** [Landscapes]
- Lathes. (Engine.)**  
Greaves, Kinsman Tool Co., The, Cincinnati, O.
- Lawn Furniture. (Wire.)**  
Belle Iron & Wire Works, J. E. Detroit, Mich.  
Cincinnati Iron Fence Co., Cincinnati, Ohio.  
Dufur & Co., Baltimore, Md.  
Dufur, Baggett & Co., Baltimore, Md.
- Lights. (Portable Acetylene.)**  
Milburn Co., Alex. N., Baltimore, Md.
- Liquor Filters.**  
International Filter Co., Chicago, Ill.
- Lithographers, Engravers.**  
Young & Selden Co., Baltimore, Md.
- Lockers (Steel)**  
Berstein Mfg. Co., Phila., Pa.  
Highley Metal Ceiling Mfg. Co., S., Pittsburgh, Pa.  
Van Hurlingen, J. M., Atlanta, Ga.
- Locomotives.**  
**INDUSTRIAL.**  
Baldwin Locomotive Wks., The, Philadelphia, Pa.  
Olinx Mfg. Co., Corry, Pa.  
Gard Geo. B., Cincinnati, O.  
Davenport Locomotive Works, Davenport, Ia.  
Fate Co., J. D., Plymouth, Ohio.  
Jeffrey Mfg. Co., Columbus, O.  
Lima Locomotive Corporation, Lima, O.  
Forger Co., H. K., Pittsburgh, Pa.  
Southern Iron & Equipment Co., Allan's, Ga.  
Thaw & Williams, Cincinnati, O.
- RAILWAY.**  
Baldwin Locomotive Wks., The, Philadelphia, Pa.  
Lima Locomotive Corporation, Lima, O.  
Forger Co., H. K., Pittsburgh, Pa.
- Looms and Weaving Machinery.**  
Compton & Knowles Loom Works, Worcester, Mass.  
Draper Co., Hopedale, Mass.  
Mason Machine Works, Taunton, Mass.  
Saco-Lowell Shops, Boston, Mass.
- Loom Harness.**  
American Supply Co., Providence, R. I.
- Lubricants.**  
Albany Lubricating Co., New York, N. Y.  
Oil Elevator Co., New York, N. Y.
- Lubricants. (Graphite.)**  
Dixon Crucible Co., Joseph, Jersey City, N. J.
- Lumber.**  
Industrial Lumber Co., Elizabeth, La.
- Lumber. (Crescote.)**  
American Crescote Works, New Orleans, La.  
National Lumber & Creosoting Co., Texarkana, Ark.
- Lumber. (Heavy Construction, Pitch Pine, etc.)**  
Industrial Lumber Co., Elizabeth, La.  
National Lumber & Crescot. Co., Texarkana, Ark.
- Lumber Buggies.**  
Sole Steam Feed Works -Meridian, Miss.
- Lumber Stackers.**  
Sole Steam Feed Works, Meridian, Miss.
- Machinery. (Special.)**  
Bills Co., E. W., Brooklyn, N. Y.  
Eagle Mfg. Co., Cincinnati, Ohio.  
Kline, Lewis T., Alpena, Mich.  
Universal Machine Co., Baltimore, Md.
- Machinery and Supplies. (New and Second-Hand Bargains.)**  
Assets Purchasing Co., Wheeling, W. Va.  
Birtwell, W. L., Phila., Pa.  
Boston Iron & Metal Co., Balto., Md.  
Brunner, Frederick, Pittsburgh, Pa.
- Central Transfer Co., Baltimore, Md.  
Chicago House Wrecking Co., Chicago, Ill.  
Cleveland Belting & Machinery Co., Cleveland, O.  
Detrick & Harvey Mch. Co., Baltimore, Md.  
Dusets & Son, New York, N. Y.  
Eagle Pipe Supply Co., Inc., New York, N. Y.  
Empire Mch. & Supply Corp., Norfolk, Va.  
Lehman, Charles T., Birmingham, Ala.  
Lodge & Shipley Mach. Tool Co., Cincinnati, O.  
Marine Metal & Supply Co., New York, N. Y.  
Moore & Co., Edgar M., Pittsburgh, Pa.  
New River Co., Macdonald, W. Va.  
Nuesbaum & Co., V. M., Fort Wayne, Ind.  
Pfannmuller Engineering Co., Chicago, Ill.  
Power Equipment Co., New York, N. Y.  
Prentiss Tool & Supply Co., New York, N. Y.  
Randle Machinery Co., Cincinnati, O.  
Read Co., Howard W., Philadelphia, Pa.  
Samuel, Frank, Philadelphia, Pa.  
Sevett's Sons, Inc., L. E., Philadelphia, Pa.  
Tamppe Machinery Exchange, Tampa, Fla.  
Thaw & Williams, Cincinnati, O.  
Toomey, Frank, Inc., Philadelphia, Pa.  
Wilson Machy. Co., St. Louis, Mo.  
Winterer, Herman L., Philadelphia, Pa.
- Machine Tools.**  
Greaves, Kinsman Tool Co., The, Cincinnati, O.
- Machinists. (Engineers.)**  
Universal Machine Co., Baltimore, Md.
- Magnesia Materials.**  
Johns-Manville Co., H. W., New York, N. Y.
- Magnetic Separators.**  
Buchanan & Co., Inc. C. G., New York, N. Y.
- Mall Chutes.**  
Cutler Mail Chute Co., Rochester, N. Y.
- Mechanical Draft.**  
Buffalo Forge Co., Buffalo, N. Y.  
Sturtevant Co., R. F., Hyde Park, Boston, Mass.
- Metal Ceilings. [See Ceilings, Metal.]**
- Metaline.**  
Metaline Co., Long Island City, N. Y.
- Metal. (For Tanks, Culverts, Roofing, etc.)**  
Whitaker-Giesner Co., Portsmouth Plant, Portsmouth, Ohio.
- Metal Culverts. [See Culverts.]** (Corrugated Metal.)
- Metal Shingles. [See Shingles.]** (Metal.)
- Metal Window Frames and Sash. [See Window Frames and Sash.]** (Fireproof.)
- Metal Work. [See Sheet Metal Work.]**
- Metal-Working Machinery. (Sheet.)**  
Bliss Co., E. W., Brooklyn, N. Y.
- Meters. (Water.)**  
Alberger Pump & Condenser Co., New York, N. Y.
- Meter Boxes, Couplings, Gauges. (Water.)**  
Clark Co., H. W., Mattoon, Ill.
- Micrometers, Calipers, etc.**  
Starrett Co., L. S., Athol, Mass.
- Milk Filters. (Liquor, Milk, etc.)**  
International Filter Co., Chicago, Ill.
- Mill Engineers and Architects.**  
O'Brian, W. O., Memphis, Tenn.  
Sirrino, J. E., Greenville, S. C.
- Mill Machinery and Supplies.**  
Bailey-Lebby Co., Charleston, S. C.  
Cameron & Barkley Co., Charleston, S. C.  
Empire Mch. & Supply Corp., Norfolk, Va.  
Gainesville Iron Works, Gainesville, Ga.  
Lombard Iron Works, Augusta, Ga.  
Lunkenheimer Co., The, Cincinnati, O.  
Mecklenburg Iron Works, Charlotte, N. C.  
Salem Foundry & Machine Wks., Salem, Va.  
Starr Co., R. F., Baltimore, Md.  
Wolf Co., Chambersburg, Pa.
- Mining Machinery. (Gold, Copper, Plate, etc.)**  
Bartlett & Snow Co., C. O., Cleveland, O.  
Jeffrey Mfg. Co., Columbus, O.  
McLannan-Stone Mach. Co., Hollidaysburg, Pa.  
Mecklenburg Iron Works, Charlotte, N. C.  
Raymond Bros. Impact Pulv. Co., Chicago, Ill.
- Mixers. (Concrete.)**  
Milwaukee Concrete Mixer Co., Milwaukee, Wis.  
Van Dusen, Royce Co., The, Columbus, O.
- Mixing Machinery.**  
Dunning, W. D., Syracuse, N. Y.
- Mortar Colors.**  
Chattanooga Paint Co., Chattanooga, Tenn.
- Motor Trucks. (Gasoline.)**  
White Co., The, Cleveland, O.
- Motor Trucks. (Second Hand.)**  
Mar-Del Mobile Co., Baltimore, Md.
- Music Wire.**  
American Steel & Wire Co., Chicago, Ill.  
Waterbury Co., The, New York, N. Y.
- Nails. (Out.)**  
La Belle Iron Works, Steubenville, O.
- Nails and Spikes.**  
La Belle Iron Works, Steubenville, Ohio.  
Republic Iron & Steel Co., Youngstown, O.  
Youngstown Sheet & Tube Co., Youngstown, O.
- Nuts. [See Bolts, Nuts, Rivets, etc.]**
- Oil. (Crescote.)**  
Barrett Mfg. Co., Philadelphia, Pa.
- Oil. (Lubricating, Etc.)**  
Albany Lubricating Co., New York, N. Y.  
Galena Signal Oil Co., Franklin, Pa.  
Gulf Refining Co., Pittsburgh, Pa.  
Robinson & Son Co., Wm. C., Baltimore, Md.
- Oil Cans.**  
Wall Mfg. Supply Co., P., Allegheny, Pa.
- Oil Engines. [See Engines (Oil).]**
- Oil Separators.**  
Stewart Heater Co., Buffalo, N. Y.
- Oil Well Machinery.**  
Keystone Steam Well Mach. Co., Beaver Falls, Pa.  
Williams Bros., Ithaca, N. Y.
- Ore Handling Machinery. [See Coal Handling Machinery.]**
- Ornamental Iron Works.**  
Boiles Iron & Wire Wks., J. E. Detroit, Mich.  
Chesapeake Iron Works, Baltimore, Md.  
Dow Wire & Iron Works, Louisville, Ky.  
Ohio Elevator & Mach. Co., The, Columbus, O.  
Schrieber & Sons Co., The L., Cincinnati, O.  
Snead Architectural Iron Works, Louisville, Ky.  
The Van Dorn Iron Works Co., Cleveland, Ohio.
- Oxygen.**  
International Oxygen Co., New York, N. Y.
- Oxygen Generators.**  
International Oxygen Co., New York, N. Y.
- Oxy-Acetylene Welding and Cutting Outfit and Supplies.**  
International Oxygen Co., New York, N. Y.  
Milburn Co., Alex. N., Baltimore, Md.
- Packing. (Asbestos, Metallic, Rubber, Leather, etc.)**  
Goodyear Tire & Rubber Co., Akron, O.  
Graton & Knight Mfg. Co., Worcester, Mass.  
Jenkins Bros., New York, N. Y.  
Johns-Manville Co., H. W., New York, N. Y.  
Power Specialty Co., New York, N. Y.  
United Lead Co., New York, N. Y.
- Packing. (Lead Wool.)**  
United Lead Co., New York, N. Y.
- Paint. (Metal Surfaces.)**  
Dixon Crucible Co., Joseph, Jersey City, N. J.
- Paint. (Preservative.)**  
Reeves Co., The, New Orleans, La.
- Paint. (Roofing, Building, etc.)**  
Cameron & Barkley Co., Charleston, S. C.  
Chattanooga Paint Co., Chattanooga, Tenn.
- Paper. (Roofing, Building, Sheeting, etc.)**  
Barrett Mfg. Co., Philadelphia, Pa.  
Cameron & Barkley Co., Charleston, S. C.
- Partitions. (Wooden Rolling.)**  
Van Hurlingen, J. M., Atlanta, Ga.
- Patent Attorneys.**  
Brown, Eugene O., Washington, D. C.  
Chandler & Chaudes, Washington, D. C.  
Coleman, Watson E., Washington, D. C.  
Evans & Co., Victor J., Washington, D. C.  
Hodges, Vernon E., Washington, D. C.  
International Bureau of Patents, Inc., New York, N. Y.  
Jenner, Herbert, Washington, D. C.  
Lacey, R. S. & A. R., Washington, D. C.  
McLundie, A. S., Chattanooga, Tenn.  
Mills, Mansell F., Washington, D. C.  
Parker, C. L., Washington, D. C.  
Woodworth John R., Washington, D. C.
- Pavement Filter.**  
Barrett Mfg. Co., Philadelphia, Pa.
- Paving Blocks. (Crescote.)**  
International Crescoting & Construction Co., Galveston, Tex.
- National Lumber & Crescoting Co., Texarkana, Ark.**  
Republic Crescoting Co., Indianapolis, Ind.  
Southern Crescoting Co., Ltd., Slidell, La.  
Southern Paving Const. Co., Chattanooga, Tenn.  
Southern Wood Preserving Co., Atlanta, Ga.  
Wyckoff Pipe & Crescoting Co., Inc., The, New York, N. Y.
- Paving Blocks. (Granite.)**  
Southern Marble & Granite Co., The, Spartansburg, S. C.
- Paving Brick.**  
Carlyle Paving Brick Co., Portsmouth, O.  
Copeland-Ingis Shale Brick Co., Birm'gh'm, Ala.  
Dunn Wire-Cut-Lug Brick Co., Connaut, Ohio  
Southern Clay Mfg. Co., Chattanooga, Tenn.  
Standard Brick Co., Macon, Ga.
- Paving Pumps. (Asphalt.)**  
Barber Asphalt Paving Co., Philadelphia, Pa.  
Cummer & Son Co., E. D., Cleveland, Ohio.  
Equitable Asphalt Maintenance Co., Kansas City, Mo.
- Perforated Metal.**  
Caldwell & Son, H. W., Chicago, Ill.  
Erdie Perforating Co., Rochester, N. Y.  
Hendricks Mfg. Co., The, Carbondale, Pa.  
Manhattan Perforated Metal Co., New York, N. Y.  
Mundt & Sons, Charles, Jersey City, N. J.
- Petroleum Refiners.**  
Gulf Refining Co., Pittsburgh, Pa.  
Standard Oil Co., Inc., Newark, N. J.
- Phosphate Machinery.**  
American Process Co., New York, N. Y.  
Bailey-Lebby Co., The, Charleston, S. C.  
Cameron & Barkley Co., Charleston, S. C.  
Link-Belt Co., Philadelphia, Pa.  
McLannan-Stone Mach. Co., Hollidaysburg, Pa.  
Raymond Impact Pulv. Co., Chicago, Ill.  
Valk & Murdoch Iron Works, Charleston, S. C.
- Pig Iron.**  
La Belle Iron Works, Steubenville, O.  
Republic Iron & Steel Co., Youngstown, O.  
Tennessee Coal, Iron & R. R. Co., Birm'gh'm, Ala.
- Pile Drivers.**  
Volcan Iron Works, Chicago, Ill.
- Pile Driving and Wharf Building.**  
Murray & Co., Inc., W. D., Norfolk, Va.
- Piling. (Crescote.)**  
American Crescote Works, New Orleans, La.  
Intern'l Crescoting & Const. Co., Galveston, Tex.  
Southern Crescoting Co., Ltd., Slidell, La.  
Southern Paving Const. Co., Chattanooga, Tenn.
- Pillow Blocks.**  
Golden's Foundry & Machine Co., Columbus, Ga.  
Medart Patent Pulley Co., St. Louis, Mo.
- Pipes.**  
Allegheny Steel Co., Pittsburgh, Pa.  
La Belle Iron Works, Steubenville, Ohio.  
National Tube Co., Pittsburgh, Pa.  
Youngstown Sheet & Tube Co., Youngstown, O.
- Pipes. (Cast Iron.)**  
American Cast Iron Pipe Co., Birmingham, Ala.  
American Pipe & Construction Co., Phila., Pa.  
Clow & Sons, James B., Chicago, Ill.  
Donaldson Iron Co., Emmaus, Pa.  
Giamorgan Pipe & Foundry Co., Lynchburg, Va.  
Lynchburg Foundry Co., Lynchburg, Va.  
Massillon Iron & Steel Co., Massillon, O.  
T. S. Cast Iron Pipe & Fdry. Co., Burlington, N. J.  
Wood & Co., R. D., Philadelphia, Pa.
- Pipes. (Coil.)**  
Frick Co., The, Waynesboro, Pa.  
National Pipe Bending Co., New Haven, Conn.  
York Mfg. Co., York, Pa.
- Pipes. (Corrugated Culvert.)** [See Culvert (Corrugated Metal).]
- Pipes. (Lead)**  
United Lead Co., New York, N. Y.
- Pipes. (Riveted.)**  
Keeler Co., E., Williamsport, Pa.
- Pipes. (Second Hand.)**  
Eagle Pipe Supply Co., Inc., New York, N. Y.  
Marine Metal & Supply Co., New York, N. Y.
- Pipes. (Spiral Riveted.)**  
American Spiral Pipe Works, Chicago, Ill.
- Pipes. (Spiral Steel.)**  
Standard Spiral Pipe Works, Chicago, Ill.
- Pipes. (Sewer, Vitrified.)** [See Sewer Pipe, Vitrified.]
- Pipes. (Wood.)**  
Wyckoff & Son Co., A., Elmira, N. Y.
- Pipes. (Wrought Iron.)**  
Youngstown Sheet & Tube Co., Youngstown, O.
- Pipe Bends.**  
Pittsburgh Valve, Fdry. & Const. Co., Pittsburgh, Pa.
- Pipe Covering. (Steam.)**  
Chesapeake Roofing & Pipe Covering Co., Inc., Baltimore, Md.  
Southern Asbestos Mfg. Co., Inc., Richmond, Va.  
Wyckoff & Son Co., A., Elmira, N. Y.
- Pipe Cutting and Threading Machinery.**  
Saunders' Sons, D., Yonkers, N. Y.
- Pipe Fittings.**  
American Cast Iron Pipe Co., Birmingham, Ala.  
Lunkenheimer Co., The, Cincinnati, O.  
Pittsburgh Valve, Fdry. & Const. Co., Pittsburgh, Pa.  
York Mfg. Co., York, Pa.
- Pipe Jointing. (Gas and Water Main.)**  
United Lead Co., New York, N. Y.
- Pipe Unions and Joints.**  
Dart Mfg. Co., E. M., Providence, R. I.  
National Tube Co., Pittsburgh, Pa.
- Pipe Wrenches and Cutters.**  
Saunders' Sons, D., Yonkers, N. Y.
- Piping System. (Designed and Installed.)**  
Pittsburgh Valve, Foundry & Construction Co., Pittsburgh, Pa.
- Pitch.**  
Barrett Mfg. Co., Philadelphia, Pa.
- Plaster Machinery.**  
Bartlett & Snow Co., C. O., Cleveland, O.
- Plates.**  
Allegheny Steel Co., Pittsburgh, Pa.  
Cincinnati Iron & Steel Co., Cincinnati, O.  
Wood Iron & Steel Co., Alan, Philadelphia, Pa.
- Pneumatic Tools. [See Tools-Pneumatic.]**
- Poles. (Crescote.)**  
American Crescote Works, New Orleans, La.  
Intern'l Crescoting & Const. Co., Galveston, Tex.  
National Lumber & Cresos. Co., Texarkana, Ark.  
Southern Crescoting Co., Ltd., Slidell, La.  
Southern Paving Const. Co., Chattanooga, Tenn.  
Southern Wood Preserving Co., Atlanta, Ga.
- Polishing Machinery. (Wheels and Blocks.)**  
Carborandum Co., Niagara Falls, N. Y.  
Vitrified Wheel Co., Westfield, Mass.
- Power Plants. (Steam and Electric.)**  
Allen-Scales Engineering Co., Inc., Nashville, Tenn.  
Assets Purchasing Co., Wheeling, W. Va.
- Power Transmission Machinery.**  
Bailey-Lebby Co., Charleston, S. C.  
Caldwell & Son Co., H. W., Chicago, Ill.  
Crescon-Morris Co., Philadelphia, Pa.  
Golden's Foundry & Machine Co., Columbus, Ga.  
Jeffrey Mfg. Co., Columbus, O.  
Jones & Laughlin Steel Co., Pittsburgh, Pa.  
Link-Belt Co., Philadelphia, Pa.  
Medart Patent Pulley Co., St. Louis, Mo.  
Reeves Pulley Co., Columbus, Ind.  
Schofield Iron Works, Macon, Ga.  
Smith-Courtney Co., Richmond, Va.  
Wolf Co., The, Chambersburg, Pa.  
Wood's Sons, T. B., Chambersburg, Pa.
- Presses. (Baling, Cottonseed Oil, etc., Hydraulic and Power.)**  
Boomer & Borchert Press Co., Syracuse, N. Y.  
Cardwell Machine Co., Richmond, Va.  
Continental Gin Co., Birmingham, Ala.  
French Oil Mill Mchry. Co., The, Piquette, Ohio  
Grote Mfg. Co., F., Evansville, Ind.  
Murray Co., The, Atlanta, Ga.  
Saco-Lowell Shops, Boston, Mass.
- Presses. (Stamping.)**  
Ans Machine Co., Max, Mt. Vernon, N. Y.  
Bliss Co., E. W., Brooklyn, N. Y.
- Pressed Steel Construction.**  
Trussed Concrete Steel Co., Youngstown, O.
- Printers. (Book, Catalog, Job, etc.)**  
Fleet-McGinley Co., Baltimore, Md.
- Pruners.**  
Electric Bond & Share Co., New York
- Pulleys. (Friction Clinch.)**  
Caldwell & Son Co., H. W., Chicago, Ill.  
Crescon-Morris Co., Philadelphia, Pa.  
Medart Patent Pulley Co., St. Louis, Mo.  
Moore & White Co., The, Philadelphia, Pa.  
Wood's Sons Co., T. B., Chambersburg, Pa.
- Pulleys. (Steel Rim.)**  
Medart Patent Pulley Co., St. Louis, Mo.

**Pulleys. (Wood Split.)**

Caldwell & Son Co., H. W., Chicago, Ill.  
Medart Patent Pulley Co., St. Louis, Mo.  
Reeves Pulley Co., Columbus, Ind.  
Salem Foundry & Machine Wks., Salem, Va.

**Pulleys, Shafting and Hangers.**

Caldwell & Son Co., H. W., Chicago, Ill.  
Cresson-Morris Co., Philadelphia, Pa.  
Erie Clutch & Pulley Co., Erie, Pa.  
Golden's Foundry & Mach. Co., Columbus, Ga.  
Jeffrey Mfg. Co., Columbus, O.  
Jones & Langhin Steel Co., Pittsburgh, Pa.  
Link-Belt Co., Philadelphia, Pa.  
Medart Patent Pulley Co., St. Louis, Mo.  
Reeves Pulley Co., Columbus, Ind.  
Wood's Sons Co., T. B., Chambersburg, Pa.

**Pulverizers.**

Anstin Mfg. Co., Chicago, Ill.  
Granderer Pat. Crusher & Pulv. Co., St. Louis, Missouri.  
Jeffrey Mfg. Co., Columbus, O.  
McLanahan-Stone Mach. Co., Hollidaysburg, Pa.  
Raymond Bros., Impact Pulv. Co., Chicago, Ill.  
Stedman's Forestry & Machine Wks., Aurora, Ind.  
Western Wheel Scraper Co., Aurora, Ill.

**Pumping Machinery.**

Affiliated Manufacturers Co., Milwaukee, Wis.  
Alberger Pump & Condenser Co., New York, N. Y.  
Cameron Steam Pump Wks., A. S., New York, N. Y.  
Cook, A. D., Lawrenceburg, Ind.  
Deane Steam Pump Plant, Holyoke, Mass.  
Erie Pump & Equipment Co., Erie, Pa.  
Emerson Pump & Valve Co., Alexandria, Va.  
Holland Machine Co., New York, N. Y.  
Keystone Pump & Well Engine Co., Beaver Falls, Pa.  
Moffatt Machinery Mfg. Co., Charlotte, N. C.  
Morris Machine Works, Haldwinstown, N. Y.  
Myers & Bros., F. E., Ashland, O.  
Platt Iron Works Co., Dayton, Ohio.  
Wood & Co., R. D., Philadelphia, Pa.  
Worthington, Henry R., Harrison, N. J.

**Pumps. (Air.)**

Blakelee Mfg. Co., Du Quoin, Ill.

**Pumps. (Air Lift.)**

Sullivan Mchry. Co., Chicago, Ill.

**Pumps. (Boiler Feed.)**

Alberger Pump & Condenser Co., New York, N. Y.  
Blakelee Mfg. Co., Du Quoin, Ill.  
Cameron Steam Pump Wks., A. S., New York, N. Y.  
Jeansville Iron Works Plant, Hazleton, Pa.  
Moffatt Machinery Mfg. Co., Charlotte, N. C.  
Murray Iron Works Co., Burlington, Ia.  
Myers & Bros., F. E., Ashland, O.

**Pumps. (Centrifugal.)**

Alberger Pump & Condenser Co., New York, N. Y.  
Buffalo Steam Pump Co., Buffalo, N. Y.  
Cameron Steam Pump Wks., A. S., New York, N. Y.  
Erie Pump & Equipment Co., Erie, Pa.  
Holland Machine Co., New York, N. Y.  
Jeansville Iron Works Plant, Hazleton, Pa.  
Morris Machine Works, Haldwinstown, N. Y.  
Pacific Flush Tank Co., New York, N. Y.  
Platt Iron Works Co., Dayton, Ohio.  
Wood & Co., R. D., Philadelphia, Pa.  
Worthington, Henry R., Harrison, N. J.

**Pumps. (Deep Well.)**

Cameron Steam Pump Wks., A. S., New York, N. Y.  
Cook, A. D., Lawrenceburg, Ind.  
Holland Machine Co., New York, N. Y.  
Keystone Pump & Well Engine Co., Beaver Falls, Pa.  
Layne & Bowler Co., Houston, Tex.

**Pumps. (Dredging.)**

Buffalo Steam Pump Works, Buffalo, N. Y.  
Erie Pump & Equipment Co., Erie, Pa.  
Holland Mch. Co., New York, N. Y.  
Morris Machine Works, Haldwinstown, N. Y.  
Wood & Co., R. D., Phila., Pa.

**Pumps. (Hydraulic.)**

Buffalo Steam Pump Co., Buffalo, N. Y.  
Cameron Steam Pump Wks., A. S., New York, N. Y.  
Holland Machine Co., Richmond, Va.  
Erie Pump & Equipment Co., Erie, Pa.  
French Oil Mill Mchry. Co., The Piqua, O.  
Holland Mch. Co., New York, N. Y.

**Pumps. (Steam.)**

Alberger Pump & Condenser Co., New York, N. Y.  
Blake & Knowles Steam Pump Works, East Cambridge, Mass.  
Blakelee Mfg. Co., Du Quoin, Ill.  
Buffalo Steam Pump Co., Buffalo, N. Y.  
Cameron Steam Pump Wks., A. S., New York, N. Y.  
Cameron & Barley Co., Charleston, S. C.  
Clayton Air Compressor Plant, Cambridge, Mass.  
Cook, A. D., Lawrenceburg, Ind.  
Deane Steam Pump Plant, Holyoke, Mass.  
Emerson Pump & Valve Co., Alexandria, Va.  
Fairbanks-Morse & Co., Atlanta, Ga.  
Keystone Pump & Well Engine Co., Beaver Falls, Pa.  
Murray Iron Works Co., Burlington, Ia.  
Snow Steam Pump Plant, The New York, N. Y.  
Worthington, Henry R., Harrison, N. J.

**Pumps. (Trench.)**

Affiliated Manufacturers Co., Milwaukee, Wis.  
C. H. & E. Mfg. Co., Inc., Milwaukee, Wis.

**Pumps. (Carbine Driven.)**

Starvant Co., B. F., Hyde Park, Boston, Mass.

**Pumps. (Vacuum.)**

Cameron Steam Pump Wks., A. S., New York, N. Y.

**Pumps. (Water-works.)**

Holland Mch. Co., New York, N. Y.  
Platt Iron Works Co., Dayton, Ohio.

**Pump Leathers.**

Graton & Knight Mfg. Co., Worcester, Mass.

**Punching and Shearing Machinery.**

Biles Co., E. W., Brooklyn, N. Y.

**Railroads. [See Industrial, Agricultural and Commercial Opportunities.]****Railroad Equipment and Supplies. (New and Second-hand.)**

American Frog & Switch Co., Hamilton, O.  
Bailey-Lebby Co., The, Charleston, S. C.  
Birmingham Rail & Loco. Co., Birmingham, Ala.  
Cincinnati Frog & Switch Co., Cincinnati, O.  
Card, Geo. H., Cincinnati, O.  
Fairbanks-Morse & Co., Atlanta, Ga.  
Foster Co., L. B., Pittsburgh, Pa.  
Georgia Car & Locomotive Co., Atlanta, Ga.  
Hirsch Rolling Mill Co., St. Louis, Mo.  
Hoffman & Co., Inc., R. O., Baltimore, Md.  
Hyde, Chas., Pittsburgh, Pa.  
Kilby Frog & Switch Co., Birmingham, Ala.  
National Steel Rail Co., St. Louis, Mo.  
Read Co., Howard W., Philadelphia, Pa.  
Robinson & Orr, Pittsburgh, Pa.  
Sherwood, E. O., New York, N. Y.  
Southern Iron & Equipment Co., Atlanta, Ga.  
Steel Rail Supply Co., The, New York, N. Y.  
Thaw & Williams, Cincinnati, O.  
United States Rail Co., Cumberland, Md.

Weir Frog Co., Cincinnati, O.  
West Virginia Rail Co., Huntington, W. Va.  
Wilson & Co., E. H., Philadelphia, Pa.  
Wilson Mach. Co., St. Louis, Mo.  
Zelicker Supply Co., Walter A., St. Louis, Mo.

**Railroad Frogs and Switches.**

American Frog & Switch Co., Hamilton, O.  
Cincinnati Frog & Switch Co., Cincinnati, O.  
Conley Frog & Switch Co., Memphis, Tenn.  
Kilby Frog & Switch Co., Birmingham, Ala.  
Robinson & Orr, Pittsburgh, Pa.  
Sweet's Steel Co., Williamsport, Pa.  
Weir Frog Co., Cincinnati, O.

**Rails. (Steel.)**

Carnegie Steel Co., Pittsburgh, Pa.  
Foster Co., L. B., Pittsburgh, Pa.  
Frank, J. E., Atlanta, Ga.  
Gulf States Steel Co., Birmingham, Ala.  
Hirsch Rolling Mill Co., St. Louis, Mo.  
Hoffman & Co., Inc., R. O., Baltimore, Md.  
Hyde, Chas., Pittsburgh, Pa.  
Lackawanna Steel Co., Lackawanna, N. Y.  
Lewis & Co., Henry, Philadelphia, Pa.  
National Steel Rail Co., St. Louis, Mo.  
Republic Iron & Steel Co., Youngstown, O.  
Robinson & Orr, Pittsburgh, Pa.  
Sherwood, E. O., New York, N. Y.  
Southern Iron & Equipment Co., Atlanta, Ga.  
Steel Rail Supply Co., The, New York, N. Y.  
Sweet's Steel Co., Williamsport, Pa.  
United States Rail Co., Cumberland, Md.  
West Virginia Rail Co., Huntington, W. Va.  
Wilson & Co., E. H., Philadelphia, Pa.

Rail Braces, Crossings, etc. [See R. R. Frogs and Switches.]

**Railings and Grilles. (Brass.)**

Newman Mfg. Co., Cincinnati, O.

**Railways. (Industrial.)**

Chase Fdry. & Mfg. Co., Columbus, O.  
Cincinnati Frog & Switch Co., Cincinnati, O.  
Hunt Co., Inc., C. W., West New Brighton, N. Y.  
Link-Belt Co., Philadelphia, Pa.

**Rams. (Hydraulic.) [See Hydraulic Ram.]****Reamers.**

Morse Twist Drill & Mch. Co., New Bedford, Mass.

**Reeds.**

American Supply Co., Providence, R. I.

**Refrigerating Machinery and Apparatus.**

Huestoner & Cramer Co., The, Detroit, Mich.  
Portsmouth Engine Co., Portsmouth, O.  
Remington Machine Co., Wilmington, Del.  
Viller Mfg. Co., Milwaukee, Wis.  
Vost Machine Co., Henry, Louisville, Ky.  
York Mfg. Co., York, Pa.

**Reinforcing Bars. [See Concrete Reinforcing Bars.]****River and Harbor Improvements. (Dredges, Dock, Wharves, etc.)**

Globe Dredging Co., Savannah, Ga.

**Road Expansion Joints.**

Philip Carey Co., The, Cincinnati, Ohio.

**Road and Street Machinery.**

Austin-Western Road Mchry. Co., The, Chicago, Ill.  
Buffalo Steam Roller Co., Buffalo, N. Y.  
Equitable Asphalt Maintenance Co., Kansas City, Mo.  
Erie Machine Shops, Erie, Pa.  
Gallon Iron Works & Mfg. Co., The, Gallon, Ohio.  
Holt Manufacturing Co., Inc., The, Peoria, Ill.  
Kelly Springfield Road Roller Co., Springfield, O.  
Kilbourne & Jacobs Mfg. Co., Columbus, Ohio.  
Russell Grader Mfg. Co., Minneapolis, Minn.  
Thew Automatic Shovel Co., Lorain, Ohio.  
Universal Road Mchry. Co., Kingston, N. Y.  
Western Wheel Scraper Co., Aurora, Ill.

**Road and Street Materials.**

Barber Asphalt Paving Co., Philadelphia, Pa.  
Barrett Mfg. Co., Philadelphia, Pa.  
Rome-Road Corp. of America, Cleveland, Ohio.  
Somet-Solway Co., Solway, N. Y.  
Standard Oil Co., Inc., Newark, N. J.  
U. S. Asphalt Refining Co., New York, N. Y.

**Road Binders**

Barber Asphalt Paving Co., Philadelphia, Pa.  
Barrett Mfg. Co., Phila., Pa.  
Somet-Solway Co., Solway, N. Y.  
Standard Oil Co., Newark, N. J.  
U. S. Asphalt Refining Co., New York, N. Y.

**Road Roller. (Steam.)**

Austin-Western Road Mchry. Co., The, Chicago, Ill.  
Barber Asphalt Paving Co., Iroquois Works, Buffalo, N. Y.  
Buffalo Steam Roller Co., Buffalo, N. Y.  
Erie Machine Shops, Erie, Pa.  
Kelly Springfield Road Roller Co., Springfield, O.  
Universal Road Mchry. Co., Kingston, N. Y.

**Road Oil.**

Gulf Refining Co., Pittsburgh, Pa.  
Standard Oil Co., Inc., Newark, N. J.  
U. S. Asphalt Refining Co., New York, N. Y.

**Road Preservatives.**

Barrett Mfg. Co., Philadelphia, Pa.  
Gulf Refining Co., Pittsburgh, Pa.  
Somet-Solway Co., Solway, N. Y.  
Standard Oil Co., Inc., Newark, N. J.  
U. S. Asphalt Refining Co., New York, N. Y.

**Road Scarifiers.**

Buffalo Steam Roller Co., Buffalo, N. Y.  
Gallon Iron Works & Mfg. Co., The, Gallon, Ohio.

**Rock Crushers. [See Crushers, Rock.]**

Rollers. (For Moving Houses, Machinery, Etc.)  
Orden, O. O., Baton Rouge, La.

**Roller Covering Supplies.**

American Supply Co., Providence, R. I.

**Roofing. (Cement Tile.)**

American Cement Tile Mfg. Co., Pittsburgh, Pa.

**Roofing. (Ready Prepared: Felt, Tar, Asbestos, Asphalt.)**

American Sheet & Tin Plate Co., Pittsburgh, Pa.  
Asbestos Protected Metal Co., Pittsburgh, Pa.  
Barrett Mfg. Co., Philadelphia, Pa.  
Cameron & Barley Co., Charleston, S. C.  
Chesapeake Roofing & Pipe Covering Co., Inc., Baltimore, Md.  
John-Manville Co., H. W., New York, N. Y.

**Roofing. (Metal Shingles.) [See Shingles, Metal.]**

Bristol Metal Mfg. Co., Bristol, Va.-Tenn.  
Cortright Metal Roofing Co., Philadelphia, Pa.  
Edwards Mfg. Co., The, Cincinnati, O.  
Hyndman Roofing Co., Cincinnati, O.  
Southern Sheet & Tin Plate Co., Ashland, Ky.

**Roofing. (Slate.)**

East Bangor Consol. Slate Co., East Bangor, Pa.  
Genuine Bangor Slate Co., Easton, Pa.  
Johnson, E. J., New York, N. Y.  
Standard Slate Corp., Easton, Pa.

**Roofing and Siding. (Metal.)**

American Sheet & Tin Plate Co., Pittsburgh, Pa.  
Asbestos Protected Metal Co., Pittsburgh, Pa.  
Cameron & Barley Co., Charleston, S. C.  
Cortright Metal Roofing Co., Philadelphia, Pa.  
Edwards Mfg. Co., The, Cincinnati, O.  
Hyndman Roofing Co., Cincinnati, O.  
Southern Sheet & Tin Plate Co., Ashland, Ky.  
Steel Products Co., The, Savannah, Ga.  
Tennessee Metal Culvert Co., Nashville, Tenn.  
Whitaker-Glessner Co., Portsmouth Works, Portsmouth, Ohio.  
Youngstown Sheet & Tube Co., Youngstown, O.

**Rope. (Manila, Sisal, Hemp, etc.)**

Broderick & Bascom Rope Co., St. Louis, Mo.  
Columbian Rope Co., Auburn, N. Y.  
Waterbury Co., New York, N. Y.  
Wood's Sons Co., T. B., Chambersburg, Pa.

**Rope. (Wire.) [See Wire Rope.]**

American Steel & Wire Co., Chicago, Ill.  
Broderick & Bascom Rope Co., St. Louis, Mo.  
Hunt Co., Inc., C. W., West New Brighton, N. Y.  
Schelling's Sons Co., John A., Trenton, N. J.  
Waterbury Co., New York, N. Y.  
Youngstown Sheet & Tube Co., Youngstown, O.

**Rope Drives.**

Caldwell & Son, H. W., Chicago, Ill.  
Cresson-Morris Co., Philadelphia, Pa.  
Jones & Langhin Steel Co., Pittsburgh, Pa.  
Medart Patent Pulley Co., St. Louis, Mo.  
Waterbury Co., New York, N. Y.  
Wood's Sons Co., T. B., Chambersburg, Pa.

**Rubber Goods.**

Eureka Fire Hose Mfg. Co., New York, N. Y.  
Goodyear Tire & Rubber Co., Akron, O.

**Rules. (Steel.)**

Lufkin Rule Co., Saginaw, Mich.  
Starrett Co., L. S., Athol, Mass.

**Sales and Vaults.**

York Safe & Lock Co., York, Pa.

**Sand.**

Arundel Sand & Gravel Co., Baltimore, Md.  
Kirkpatrick Sand & Cement Co., Birmingham, Ala.

**Sand. (Foundry.)**

Newport Sand Bank Co., Inc., Newport, Ky.

**Sand Dryers.**

American Process Co., New York, N. Y.  
Ripley Foundry & Mach. Co., The, Ripley, Ohio.

**Sap Stain Preventive.**

Church & Dwight Co., New York, N. Y.

**Sash Chains.**

Niagara Falls Metal Stamping Works, Niagara Falls, N. Y.

**Saws.**

Gerlach Co., Peter, Cleveland, O.  
Huther Bros. Saw Mfg. Co., Inc., Rochester, N. Y.

**Saws. (Hack.)**

Starrett Co., L. S., Athol, Mass.

**Saw Rigs. (Portable.)**

C. H. & E. Mfg. Co., Inc., Milwaukee, Wis.

**Sawmill Dogs.**

Soule Steam Feed Works, Meridian, Miss.

**Sawmills.**

Gainesville Iron Works, Gainesville, Ga.

**Sawmill Machinery.**

Bailey-Lebby Co., Charleston, S. C.  
Cameron & Barley Co., Charleston, S. C.  
Mecklenburg Iron Works, Charlotte, N. C.  
Schofield Iron Works, Macon, Ga.  
Southern Engine & Boiler Wks., Jackson, Tenn.

**Saw Sharpeners.**

Carborundum Co., Niagara Falls, N. Y.  
Vitrified Wheel Co., Westfield, Mass.

**Saw Sharpeners and Files. (Cotton Gin.)**

Carver Cotton Gin Co., East Bridgewater, Mass.

**Scales.**

Standard Scale & Supply Co., Pittsburgh, Pa.

**Screens. (Fly, Window and Door.)**

New Jersey Wire Cloth Co., Trenton, N. J.

**Screens. (Mining, Stone, etc.)**

Erdie Perforating Co., Rochester, N. Y.  
Hendrick Mfg. Co., Carbondale, Pa.  
Jeffrey Mfg. Co., Columbus, O.  
McLanahan-Stone Mach. Co., Hollidaysburg, Pa.  
Mundt & Sons, Charles, Jersey City, N. J.  
New Jersey Wire Cloth Co., Trenton, N. J.

**Screenings. (For Concrete and Road Construction.)**

American Ballast Co., Knoxville, Tenn.

**Screws. (Machine.)**

Progressive Mfg. Co., Torrington, Conn.

**Screws. (Safety Set.)**

Allen Manufacturing Co., Inc., Hartford, Conn.

**Screw Machine Products.**

Progressive Mfg. Co., Torrington, Conn.

**Separators. (Dust.)**

Buffalo Forge Co., Buffalo, N. Y.  
Raymond Bros. Impact Pulv. Co., Chicago, Ill.

**Sewer Flushing Siphons.**

Pacific Flush Tank Co., New York, N. Y.

**Sewer Joint Compounds.**

Pacific Flush Tank Co., New York, N. Y.

**Sewer Pipes. (Vitrified.)**

Bannon Pipe Co., P., Louisville, Ky.  
Blackmer & Post Pipe Co., St. Louis, Mo.  
Cannell Sewer Pipe Co., Cannell, Ind.  
Owensboro Sewer Pipe Co., Owensboro, Ky.  
Pomona Terra-Cotta Co., Pomona, N. O.  
Southern Sewer Pipe Co., Birmingham, Ala.  
Stevens Sons Co., H., Macon, Ga.

**Sewer Pipe and Drains. (Monolithic Concrete)**

Requarth Co., C. W., Charlotte, N. O.

**Sewage Pumping and Disposal Apparatus.**

Pacific Flush Tank Co., New York, N. Y.

**Shafting. (Cold Rolled Steel.)**

American Steel & Wire Co., Chicago, Ill.

**Shafting. (Polished Steel.)**

Jones & Langhin Steel Co., Pittsburgh, Pa.  
Medart Patent Pulley Co., St. Louis, Mo.  
Pardee Works Co., Perth Amboy, N. J.  
Republic Iron & Steel Co., Youngstown, O.  
Union Drawn Steel Co., Beaver Falls, Pa.

**Shafting. [See Pulleys, Shafting and Hangers.]****Sharpening Stones.**

Carborundum Co., Niagara Falls, N. Y.  
Vitrified Wheel Co., Westfield, Mass.

**Shearing Machinery.**

Erie Foundry Co., Erie, Pa.

**Sheet, Brass and Copper.**

McKenna Bros. Brass Co., Pittsburgh, Pa.

**Sheet Metal Work.**

Atlas Metal Works, Dallas, Tex.  
Dixie Culvert & Metal Co., Atlanta, Ga.  
Fouts Co., C. C., Middletown, O.  
Lone Star Culvert Co., Houston, Tex.  
Niagara Falls Metal Stamping Works, Niagara Falls, N. Y.  
Salsbury Metal Culvert Co., Salisbury, N. O.  
South Atlantic Blow Pipe & Sheet Metal Co., Savannah, Ga.  
Steel Products Co., The, Savannah, Ga.  
Tennessee Metal Culvert Co., Nashville, Tenn.  
Virginia Metal & Culvert Co., Roanoke, Va.

**Sheet Metal Working Machinery.**

Biles Co., E. W., Brooklyn, N. Y.  
Eagle Mfg. Co., Cincinnati, Ohio.

**Sheet Steel and Iron.**

American Sheet & Tin Plate Co., Pittsburgh, Pa.  
Cincinnati Iron & Steel Co., Cincinnati, O.  
La Belle Iron Works, Steubenville, O.  
Republic Iron & Steel Co., Youngstown, O.  
Southern Sheet & Tin Plate Co., Ashland, Ky.  
Tennessee Coal, Iron & R. R. Co., B'gh'm, Ala.  
Whitaker-Glessner Co., Portsmouth Works, Portsmouth, Ohio.  
Wood Iron & Steel Co., Alan, Philadelphia, Pa.  
Youngstown Sheet & Tube Co., Youngstown, O.

**Shelving. [(Steel) Vault, Store, Etc.]**

Van Hurlingen, J. M., Atlanta, Ga.

**Shingles. (Metal.)**

Bristol Metal Mfg. Co., Bristol, Va.-Tenn.  
Cortright Metal Roofing Co., Philadelphia, Pa.  
Edwards Mfg. Co., The, Cincinnati, O.  
Hyndman Roofing Co., Cincinnati, O.  
Southern Sheet & Tin Plate Co., Ashland, Ky.

**Shop Furniture. (Steel.)**

Merritt & Co., Camden, N. J.

**Shovels. (Special for Any Purpose.)**

Conneaut Shovel Co., The, Conneaut, Ohio.

**Shovels. (Steel, Brass, Aluminum, etc.)**

Conneaut Shovel Co., The, Conneaut, Ohio.

**Shutters. (Iron.)**

Bolles Iron & Wire Works, J. E., Detroit, Mich.  
Chesapeake Iron Works, Baltimore, Md.

**Shutters. (Steel Rolling.)**

Kinner Mfg. Co., Columbus, O.

**Shutters. (Tin Clad.)**

Victor Mfg. Co., Newburyport, Mass.

**Silos. (Metal.)**



**Steam Traps.**

Jenkins Bros., New York, N. Y.

**Steel.**

Carnegie Steel Co., Pittsburgh, Pa.  
 Carnegie Bros., Baltimore, Md.  
 Gulf States Steel Co., Birmingham, Ala.  
 Hoffman & Co., Inc., R. O., Baltimore, Md.  
 Jones & Laughlin Steel Co., Pittsburgh, Pa.  
 La Belle Iron Works, Steubenville, O.  
 Lackawanna Steel Co., Lackawanna, N. Y.  
 Lackawanna Works, Perth Amboy, N. J.  
 Republic Iron & Steel Co., Youngstown, O.  
 Tennessee Coal, Iron & R. R. Co., Birmingham, Ala.  
 Union Drawn Steel Co., Beaver Falls, Pa.  
 Upton Nat. Co., The Cleveland, O.  
 Walker-Gleason Co., Portsmouth Works, Portsmouth, Ohio.  
 Wood Iron & Steel Co., Alan, Philadelphia, Pa.  
 Youngstown Sheet & Tube Co., The Youngstown, O.

**Steel (Tool).**

Bourne-Fuller Co., The, Cleveland, Ohio.  
 McKenna Bros., Brass Co., Pittsburgh, Pa.  
 Union Drawn Steel Co., Beaver Falls, Pa.

**Steel (Vanadium).**

Carnegie Steel Co., Pittsburgh, Pa.  
 Union Drawn Steel Co., Beaver Falls, Pa.

**Steel Buildings. (Designers, Builders.)**

Amer. Bridge Co., of New York, N. Y.  
 Belmont Iron Works, Philadelphia, Pa.  
 Case Crane & Engineering Co., Columbus, Ohio.  
 Champion Bridge Co., Wilmington, O.  
 Chesapeake Iron Works, Baltimore, Md.  
 Des Moines Bridge & Iron Co., Des Moines, Ia.  
 Phoenix Iron Co., Philadelphia, Pa.  
 Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.  
 Richmond Structural Steel Co., Richmond, Va.  
 Schreiber & Sons Co., The L., Cincinnati, O.  
 Sneed Architectural Iron Works, Louisville, Ky.  
 Turner, G. A. P., Minneapolis, Minn.  
 Virginia Bridge & Iron Co., Roanoke, Va.

**Steel Castings.**

Crescent Steel Castings Co., Lansdowne, Pa.  
 Hoffman & Co., Inc., R. O., Baltimore, Md.  
 Riverside Steel Casting Co., Newark, N. J.

**Steel Plate Work.**

Casey-Hedges Co., Chattanooga, Tenn.  
 Chattanooga Boiler & Tank Co., Chattanooga, Tenn.  
 Cosensville Boiler Works, Cosensville, Pa.  
 Hoffman & Co., Inc., R. O., Baltimore, Md.  
 Memphis Steel Construction Co., Memphis, Tenn.  
 Phoenix Iron Co., Philadelphia, Pa.  
 Struthers-Wells Co., Warren, Pa.

**Steel Protector. (Concrete Curb Steps, etc.)**

(See Curb Protector Steel.)

**Steel Sheet Piling.**

Carnegie Steel Co., Pittsburgh, Pa.  
 Franks, J. E., Atlanta, Ga.  
 Jones & Laughlin Steel Co., Pittsburgh, Pa.  
 Lackawanna Steel Co., Lackawanna, N. Y.

**Stencils.**

Baltimore Office Supply Co., Baltimore, Md.  
 Dorman Co., J. F. W., Baltimore, Md.

**Stirrups. (Building.)**

Chesapeake Iron Works, Baltimore, Md.

**Stock Certificates, Bonds and Seals.**

Baltimore Office Supply Co., Baltimore, Md.  
 Dorman Co., J. F. W., Baltimore, Md.

**Stokers. (Hand.)**

Huber Grate Bar &amp; Stoking Co., Baltimore, Md.

**Stokers. (Mechanical.)**

Babcock & Wilcox Co., New York, N. Y.  
 Westinghouse Machine Co., Pittsburgh, Pa.

**Stone. (Building.)**

Atlantic Stone Co., Atlanta, Ga.  
 Bedford Steam Stone Works, Bedford, Ind.  
 Kirkpatrick Sand & Cement Co., Birmingham, Ala.

**Stone. (Crushed.) [See Crushed Stone.]****Stone and Gravel Plants.**

Weller Mfg. Co., Chicago, Ill.

**Storage Batteries.**

Exc. Storage Battery Co., The, Philadelphia, Pa.  
 Westinghouse Machine Co., Pittsburgh, Pa.

**Strapping Leather.**

Graton &amp; Knight Mfg. Co., Worcester, Mass.

**Structural Steel and Iron.**

Allegheny Steel Co., Pittsburgh, Pa.  
 Amer. Bridge Co. of New York, N. Y.  
 Belmont Iron Works, Philadelphia, Pa.  
 Bourne-Fuller Co., The, Cleveland, Ohio  
 Carnegie Steel Co., Pittsburgh, Pa.  
 Case Crane & Engineering Co., Columbus, Ohio.  
 Champion Bridge Co., Wilmington, O.  
 Chesapeake Iron Works, Baltimore, Md.  
 Chicago Bridge & Iron Works, Chicago, Ill.  
 Cincinnati Iron & Steel Co., Cincinnati, O.  
 Des Moines Bridge & Iron Co., Des Moines, Ia.  
 Dietrich Bros., Baltimore, Md.  
 East St. Louis Bridge Co., East St. Louis, Ill.  
 Grainger & Co., Inc., Louisville, Ky.  
 Hoffman & Co., Inc., R. O., Baltimore, Md.  
 Jones & Laughlin Steel Co., Pittsburgh, Pa.  
 Lackawanna Steel Co., Lackawanna, N. Y.  
 Memphis Steel Construction Co., Memphis, Tenn.  
 Phoenix Iron Co., Philadelphia, Pa.  
 Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.  
 Republic Iron & Steel Co., Youngstown, O.  
 Richmond Structural Steel Co., Richmond, Va.  
 Schreiber & Sons Co., Wm. B., Pittsburgh, Pa.  
 Schreiber & Sons Co., The L., Cincinnati, O.  
 Sneed Architectural Iron Works, Louisville, Ky.  
 Southern Sheet & Tin Plate Co., Ashland, Ky.  
 Steel Products Co., The, Savannah, Ga.  
 Tennessee Coal, Iron & R. R. Co., Birmingham, Ala.  
 The Van Dorn Iron Works Co., Cleveland, Ohio.  
 Vincennes Bridge Co., Vincennes, Ind.  
 Virginia Bridge & Iron Co., Roanoke, Va.

**Stump Pullers.**

Stimmerman Steel Co., Lone Tree, Iowa

**Sulphur.**

Union Sulphur Co., New York, N. Y.

**Super-Heaters. (Steam.)**

Babcock & Wilcox Co., New York, N. Y.  
 Power Specialty Co., New York, N. Y.

**Surfacing Machines. (For Floors.)**

Waynell Chappell &amp; Co., Chicago, Ill.

**Surveying Instruments.**

Vetter &amp; Co., F., Philadelphia, Pa.

**Swinging Engines.**

Dake Engine Co., Grand Haven, Mich.

**Switchboards, Switches, etc.**

General Electric Co., Schenectady, N. Y.

**Switches. [See Railroad Frogs and Switches.]****Switchstands.**

Vair Frog Co., Cincinnati, O.

**Tackle Blocks. (For Wire or Manila Rope.)**

Broderick &amp; Bascom Rope Co., St. Louis, Mo.

**Talc and Soapstone Powders.**

Georgia Talc Co., Ashville, N. C.

**Tanks. (Iron and Steel.)**

American Bridge Co., New York, N. Y.  
 American Water Softener Co., Philadelphia, Pa.  
 Caldwell Co., Inc., W. E., Louisville, Ky.  
 Casey-Hedges Co., Chattanooga, Tenn.  
 Chattanooga Boiler & Tank Co., Chattanooga, Tenn.  
 Chicago Bridge & Iron Works, Chicago, Ill.  
 Cosensville Boiler Works, Cosensville, Pa.  
 Cole Mfg. Co., R. D., Newnan, Ga.  
 Des Moines Bridge & Iron Co., Des Moines, Ia.  
 Dixie Culvert & Metal Co., Atlanta, Ga.  
 Hartley Boiler Works, Montgomery, Ala.  
 Hendricks Mfg. Co., Carbondale, Pa.  
 Keeler Co., E., Williamsport, Pa.  
 Lombard Iron Works, Augusta, Ga.  
 Lookout Boiler & Mfg. Co., Chattanooga, Tenn.  
 Memphis Steel Construction Co., Memphis, Tenn.  
 Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.  
 Schreiber & Sons Co., Wm. B., Pittsburgh, Pa.  
 Southern Boiler & Tank Works, Memphis, Tenn.  
 Struthers-Wells Co., Warren, Pa.  
 Tennessee Metal Culvert Co., Nashville, Tenn.  
 Twin City Boiler Works, Bristol, Va.-Tenn.  
 Virginia Bridge & Iron Co., Roanoke, Va.  
 Walsh & Weidner Boiler Co., Chattanooga, Tenn.

**Tanks. (Wood.)**

Caldwell Co., Inc., W. E., Louisville, Ky.  
 David & Son, G. M., Palatka, Fla.

**Tapes. (Measuring.)**

Lufkin Rule Co., Saginaw, Mich.  
 Starrett Co., L. S., Athol, Mass.

**Telephones. (Supplies, Equipment.)**

Piedmont Electric Co., Asheville, N. C.  
 Western Electric Co., New York, N. Y.

**Telephone Service.**

American Telephone &amp; Telegraph Co.

**Terra-Cotta. (Ornamental.)**

Atlanta Terra-Cotta Co., Atlanta, Ga.  
 Pomona Terra-Cotta Co., Pomona, N. C.  
 Southern Building Material Co., Norfolk, Va.  
 Stevens' Sons Co., H., Macon, Ga.

**Threshers.**

Cardwall Machine Co., Richmond, Va.

**Tiering Machines. (Portable.)**

Economy Engineering Co., Chicago, Ill.

**Tile (Drain)**

Oconee Brick &amp; Tile Co., Milledgeville, Ga.

**Tile (Interior)**

Amer. Enam. Brick &amp; Tile Co., New York, N. Y.

**Tramways. (Portable.)**

Amburns Co. (Tramway Department), New York, N. Y.  
 Amburns Co. (Tramway Department), New York, N. Y.

**Tramway. (Wire Rope.)**

American Steel & Wire Co., Chicago, Ill.  
 Broderick & Bascom Rope Co., St. Louis, Mo.  
 Caldwell & Sons Co., H. W., Chicago, Ill.  
 Link-Belt Co., Philadelphia, Pa.  
 Waterbury Co., New York, N. Y.

**Transformers.**

Triumph Electric Co., Cincinnati, O.

**Trench Excavator. [See Excavator (Trench).]****Trucks. (Dry Kiln.)**

Moore Dry Kiln Co., L., Jacksonville, Fla.

**Trucks. (Platform, Freight, Mill, Factory, etc.)**

Bernstein Mfg. Co., Phila., Pa.  
 Chase Fdry. & Mfg. Co., Columbus, O.

**Trucks. (Storage Battery Auto.)**

Westinghouse Machine Co., Pittsburgh, Pa.

**Trust Companies. [See Bankers and Brokers.]****Tubes. (Boiler.)**

Allegheny Steel Co., Pittsburgh, Pa.  
 Cincinnati Iron & Steel Co., Cincinnati, O.  
 National Tube Co., Pittsburgh, Pa.

**Tube Well Strainers.**

Cook, A. D., Lawrenceburg, Ind.

**Tubing.**

La Belle Iron Works, Steubenville, O.  
 National Tube Co., Pittsburgh, Pa.  
 Youngstown Sheet & Tube Co., Youngstown, O.

**Turbines. (Hydraulic.)**

Allis-Chalmers Mfg. Co., Milwaukee, Wis.  
 Davis Foundry & Machine Wks., Rome, Ga.  
 Leffel & Co., James, Springfield, O.  
 Salem Foundry & Machine Wks., Salem, Va.  
 Smith Co., S. Morgan, York, Pa.

**Turbines. (Steam.)**

Allis-Chalmers Mfg. Co., Milwaukee, Wis.  
 General Electric Co., Schenectady, N. Y.  
 Sturtevant Co., B. F., Hyde Park, Boston, Mass.  
 Terry Steam Turbine Co., Hartford, Conn.  
 Western Electric Co., New York, N. Y.  
 Westinghouse Machine Co., Pittsburgh, Pa.

**Turn Buckles.**

Broderick &amp; Bascom Rope Co., St. Louis, Mo.

**Turntables.**

American Bridge Co., New York, N. Y.  
 Virginia Bridge & Iron Co., Roanoke, Va.

**Twine.**

Columbian Rope Co., Auburn, N. Y.

**Unions.**

Dart Mfg. Co., E. H., Providence, R. I.

**Upholstering Material. (For Auto's and Furniture)**

Du Pont Fabrikoid Co., Wilmington, Del.

**Vacuum Cleaning Apparatus.**

King Co., F. E., Norfolk, Va.

**Valves.**

Bourbon Copper & Brass Wks. Co., Cincinnati, O.  
 Columbian Iron Works, Chattanooga, Tenn.  
 Frick Co., The, Waynesboro, Pa.  
 Giamorgan Pipe & Fdry Co., Lynchburg, Va.  
 Jenkins Bros., New York, N. Y.  
 Lunkenheimer Co., The, Cincinnati, O.  
 National Tube Co., Pittsburgh, Pa.  
 Powell Co., Wm., Cincinnati, O.  
 Pittsburgh Valve Fdry. & Const. Co., Pittsburgh, Pa.  
 York Mfg. Co., York, Pa.

**Valve Boxes.**

Clark Co., H. W., Mattoon, Ill.

**Varnish.**

Berry Bros., Inc., Detroit, Mich.

**Vender Machines.**

Titus, E. K., Petersburg, Va.

**Venetian Blinds.**

Wilson Corp., J. G., New York, N. Y.

**Ventilating Apparatus. (Engineers' and Contractors')**

Buffalo Forge Co., Buffalo, N. Y.  
 Sturtevant Co., B. F., Hyde Park, Boston, Mass.

**Vises.**

Holland Mfg. Co., Erie, Pa.

**Wagons. (Dump.)**

Acme Wagon Co., Emigsville, Pa.  
 Western Wheeled Scraper Co., Aurora, Ill.

**Wagon Unloaders.**

Bonney Supply Co., Rochester, N. Y.

**Wall Coping.**

Southern Sewer Pipe Co., Birmingham, Ala.

**Wall Plugs. (Galvanized.)**

Niagara Falls Metal Stamping Works, Niagara Falls, N. Y.  
 The Van Dorn Iron Works Co., Cleveland, Ohio.

**Wall Ties.**

Niagara Falls Metal Stamping Works, Niagara Falls, N. Y.  
 Washers. (Ore and Phosphate.)  
 Bailey-Lobby Co., Charleston, S. C.  
 Cameron & Barkley Co., Charleston, S. C.  
 McLanahan-Stone Mach. Co., Hollidaysburg, Pa.

**Washers and Rivets. [See Bolts, Nuts, Rivets, Studs and Washers.]****Watchman's Clocks.**

Watchman's Clock &amp; Supply Co., New York, N. Y.

**Water Filters. [See Filters, Water, etc.]**

Waterproofing. (For Brick, Concrete, Granite, etc.)

Aquarion Co., The, Philadelphia, Pa.  
 Barrett Mfg. Co., Philadelphia, Pa.  
 Johns-Manville Co., H. W., New York, N. Y.

Water-Softening Apparatus. (Purifying.)  
 American Water Softener Co., Philadelphia, Pa.  
 International Filter Co., Chicago, Ill.  
 N. Y. Const. Jewell Filter Co., New York, N. Y.  
 Tucker & Laxton, Charlotte, N. C.

Water-Wheels. [See Turbines. (Hydraulic).]  
 Water-Works Supplies and Appliances.  
 Allen-Scales Engineering Co., Inc., Nashville, Tenn.  
 American Cast Iron Pipe Co., Birmingham, Ala.  
 American Pipe & Constr. Co., Philadelphia, Pa.  
 Bourton Copper & Brass Wks. Co., Cincinnati, O.  
 Clark Co., H. W., Mattoon, Ill.  
 Closs & Sons, James H., Chicago, Ill.  
 Coldwell-Wilcox Co., Newburgh, N. Y.  
 Columbian Iron Works, Chattanooga, Tenn.  
 Donaldson Iron Co., Emmaus, Pa.  
 Giamorgan Pipe & Foundry Co., Lynchburg, Va.  
 Keystone Pump & Well Engine Co., Beaver Falls, Pa.  
 Layne & Bowler Co., Houston, Tex.  
 Mason Iron & Steel Co., Maeston, Ohio.  
 Pomona Terra-Cotta Co., Pomona, N. C.  
 Salem Fdry. & Machine Works, Salem, Va.  
 Standard Spiral Pipe Works, Chicago, Ill.  
 Stevens' Sons Co., H., Macon, Ga.  
 U. S. Cast Iron Pipe & Fdry. Co., Burlington, N. J.  
 Wood & Co., R. D., Philadelphia, Pa.

Welding. (Oxy-Acetylene Process.)  
 Prest-O-Lite Co., Inc., The, Indianapolis, Ind.  
 Welding Plants. (Oxy-Acetylene.)  
 Milburn Co., Alex. N., Baltimore, Md.  
 Welding Apparatus. (Oxy-Acetylene Process.)  
 Prest-O-Lite Co., Inc., The, Indianapolis, Ind.  
 Well Contractors. (Oil, Artesian, etc.)  
 Cook, A. D., Lawrenceburg, Ind.  
 Hughes Specialty Well Drill Co., Charleston, S. C.  
 Stothoff Bros., Flemington, N. J.  
 Well Tools and Supplies.  
 Cook, A. D., Lawrenceburg, Ind.  
 Keystone Pump & Well Engine Co., Beaver Falls, Pa.  
 Williams Bros., Ithaca, N. Y.  
 Wheels and Axles.  
 Electric Wheel Co., (Mfrs.) Quincy, Ill.  
 Oliver Mfg. Co., W. J., Knoxville, Tenn.  
 Wheelbarrows and Carts.  
 Sterling Wheelbarrow Co., Milwaukee, Wis.  
 Window Frames and Sash. (Fireproof.)  
 Detroit Steel Products Co., Detroit, Mich.  
 Edwards Mfg. Co., The, Cincinnati, O.  
 Wagner's Sons Co., J. F., Louisville, Ky.  
 Window Frame Machinery.  
 Phillips Mfg. Co., Orlando, Fla.  
 Window Guards. (Wire.) [See Wire Goods.]  
 Windmills.  
 Caldwell Co., Inc., W. E., Louisville, Ky.  
 Wire. (Barbed Wire, etc.)  
 American Steel & Wire Co., Chicago, Ill.  
 Cyclohe Fence Co., Waukegan, Ill.  
 Roebbing's Sons Co., John A., Trenton, N. J.  
 Youngstown Sheet & Tube Co., Youngstown, O.  
 Wire. (Galvanized and Annealed.)  
 American Steel & Wire Co., Chicago, Ill.  
 Gulf States Steel Co., Birmingham, Ala.  
 Wire. (Galvanized Telephone.)  
 American Steel & Wire Co., Chicago, Ill.  
 Gulf States Steel Co., Birmingham, Ala.  
 Wire. (Plain Steel, Hoop, etc.)  
 Gulf States Steel Co., Birmingham, Ala.  
 Wire Cloth. (Iron, Steel, Brass, etc.)  
 Caldwell & Sons Co., The, H. W., Chicago, Ill.  
 Eureka Supply Co., Chattanooga, Tenn.  
 Meyers Mfg. Co., The Fred J., Hamilton, O.  
 New Jersey Wire Cloth Co., Trenton, N. J.  
 Wire Goods.  
 Bollee Iron & Wire Wks., J. E., Detroit, Mich.  
 Dow Wire & Iron Works, Louisville, Ky.  
 Dufur & Co., Baltimore, Md.  
 Dufur, Baggett & Co., Baltimore, Md.  
 Meyers Mfg. Co., The Fred J., Hamilton, O.  
 New Jersey Wire Cloth Co., Trenton, N. J.  
 Wire Netting.  
 American Steel & Wire Co., Chicago, Ill.  
 New Jersey Wire Cloth Co., Trenton, N. J.  
 Wire Rope. [See Rope (Wire).]  
 Wire Rope Clips.  
 American Steel & Wire Co., Chicago, Ill.  
 Broderick & Bascom Rope Co., St. Louis, Mo.  
 Wood Distillation.  
 Struthers-Wells Co., Warren, Pa.  
 Wood Pipe. (For Water, etc.)  
 Wyckoff & Son Co., A., Elmira, N. Y.  
 Wood. (Preservative.)  
 Barrett Mfg. Co., Phila., Pa.  
 Reesee Co., The, New Orleans, La.  
 Woodworking Machinery.  
 Kline, Lewis T., Alpena, Mich.  
 Phillips Mfg. Co., Orlando, Fla.  
 Yarn. (Tarred Steel.)  
 Columbian Rope Co., Auburn, N. Y.

## Important Information For Advertisers in Manufacturers Record

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Advertising copy not requiring proof must reach us one week in advance of publication day.

When proof is required, two weeks in advance.

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Four columns, to page.

### TYPOGRAPHICAL ARRANGEMENT

We desire to use, as far as possible, uniform display type and borders and avoid the use of black background cuts. The uniform border is two-point plain rule for all spaces less than a full page.

Copy for advertisements other than those to be used in special departments should be prepared for two-column measure for spaces less than a quarter page; for a quarter page or larger, in two or four columns.

**Tile. (Mantel and Promenade.)**

Hood Brick Co., B. Mifflin, Atlanta, Ga.

**Tile (Structural)**

Oconee Brick &amp; Tile Co., Milledgeville, Ga.

**Timbers. (Creosoted.)**

American Creosote Works, New Orleans, La.  
 Republic Creosoting Co., Indianapolis, Ind.

**Tin and Terne Plates.**

American Sheet &amp; Tin Plate Co., Pittsburgh, Pa.

**Tobacco Machinery.**

Buckeye Iron & Brass Works, Dayton, O.  
 Cardwell Machine Co., Richmond, Va.  
 Grote Mfg. Co., F., Evansville, Ind.

**Tools. (Machinists')**

Holland Mfg. Co., Erie, Pa.  
 Morse Twist Drill & Mch. Co., New Bedford, Mass.

**Tools. (Mechanical.)**

Starrett Co., L. S., Athol, Mass.

**Tools. Pneumatic.)**

Chicago Pneumatic Tool Co., Chicago, Ill.

**Torches.**

Wall Mfg. Supply Co., F., Allegheny, Pa.

**Towers. (Electric Transmission.)**

American Bridge Co. of New York, N. Y.  
 Scaife & Sons Co., Wm. B., Pittsburgh, Pa.

**Towers. (Steel and Wood.)**

Caldwell & Co., Inc., W. E., Louisville, Ky.  
 Chattanooga Boiler & Tank Co., Chattanooga, Tenn.  
 Chicago Bridge & Iron Works, Chicago, Ill.  
 Cole Mfg. Co., R. D., Newnan, Ga.  
 Des Moines Bridge & Iron Co., Des Moines, Ia.  
 Memphis Steel Const. Co., Memphis, Tenn.  
 Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.

**Track Material. (Steam & Industrial Railroads.)**

Conley Frog & Switch Co., Memphis, Tenn.  
 Upton Nat. Co., Cleveland, O.

**Traction Engines.**

Fairbanks-Morse & Co., Atlanta, Ga.  
 Holt Mfg. Co., Inc., The, Peoria, Ill.

**Tramway. (Overhead.)**

Amburns Co. (Tramway Department), New York, N. Y.  
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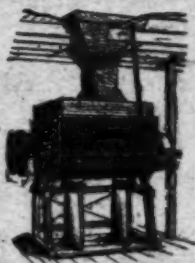


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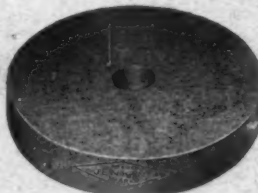
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